MHC-GX45/RG440S

SERVICE MANUAL

Ver 1.0 2003. 07

US Model
Canadian model
MHC-GX45
AEP Model
UK Model
Australian Model
MHC-RG440S

- MHC-GX45/RG440S are composed of following models. As for the service manual, it is issued for each component model, then, please refer to them.

COMPONENT MODEL NAME

	MHC-GX45	MHC-RG440S
COMPACT DISC DECK RECEIVER SYSTEM	HCD-GX45	HCD-RG440
FRONT SPEAKER SYSTEM	SS-RG440	SS-RG440
SUB WOOFER SPEAKER SYSTEM	SS-WG990	SS-WG990

PARTS LIST

Part No.	Description	Remark
	ACCESSORIES	
	**********	
1-477-716-11	COMMANDER, STANDARD (RM-SRG440)	
1-501-374-52	ANTENNA, LOOP (AM)	
1-754-243-11	ANTENNA (FM)	
⚠1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK)	
4-228-953-01	COVER, BATTERY (for RM-SRG440)	
4-236-961-01	FOOT	
4-245-555-11	MANUAL, INSTRUCTION (ENGLISH)	
4-245-555-21	MANUAL, INSTRUCTION (FRENCH) (Canadian)	
4-245-555-41	MANUAL, INSTRUCTION (FRENCH,SPANISH) (AEP)	
4-245-555-51	MANUAL, INSTRUCTION (GERMAN,DUTCH,ITALIAN) (AEP)	
4-245-555-61	MANUAL, INSTRUCTION (SWEDISH,POLISH) (AEP)	
4-245-556-11	MANUAL, INSTRUCTION (DANISH,FINNISH) (AEP)	
4-245-556-21	MANUAL, INSTRUCTION (PORTUGUESE) (AEP)	
4-245-556-41	MANUAL, INSTRUCTION (GREEK) (AEP)	
4-245-556-51	MANUAL, INSTRUCTION (CZECH,HUNGARIAN) (AEP)	
4-245-556-61	MANUAL, INSTRUCTION (TURKISH) (AEP)	
4-245-556-71	MANUAL, INSTRUCTION (SLOVAKIAN) (AEP)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

MINI HI-FI COMPONENT SYSTEM

9-961-067-01
2003G04-1
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Home Audio Company
Published by Sony Engineering Corporation

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REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2003. 07	New

HCD-GX450

SERVICE MANUAL

US Model
Canadian Model

Ver. 1.3 2006.10

- HCD-GX450 is the tuner, deck, CD and amplifier section in MHC-GX450.

		Former Type Models	New Type Models
CD Section	Model Name Using Similar Mechanism	New	New
	CD Mechanism Type	CDM74-F1BD81	CDM74KF-K6BD81C
	Optical Pick-up Name	KSM-215DCP/C2NP	KSM-213DCP/C2NP
Tape deck Section	Model Name Using Similar Mechanism	New	New
	Tape Transport Mechanism Type	CWM43FF-05	CWM43FF-05

SPECIFICATIONS

Amplifier section

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads, both channels driven, from 120 – 10,000 Hz: rated 125 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Front speaker

Continuous RMS power output (reference): 125 + 125 watts (6 ohms at 1 kHz, 10% THD)

Total harmonic distortion: less than 0.07% (6 ohms at 1 kHz, 60 W)

Sub woofer

Continuous RMS power output (reference): 150 watts (6 ohms at 50 Hz, 10% THD)

Total harmonic distortion: less than 0.07% (6 ohms at 50 Hz, 75 W)

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780 nm) Emission duration: continuous
Frequency response	2 Hz – 20 kHz (±0.5 dB)
Wavelength	780 – 790 nm
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

Tape deck section

Recording system	4-track 2-channel, stereo
Frequency response	50 – 13,000 Hz (±3 dB), using Sony TYPE I cassettes

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz (100-kHz step)
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	120 V AC, 60 Hz
Power consumption	
USA models:	265 watts
Canadian models:	330 VA

Dimensions (w/h/d) incl. projecting parts and controls

Amplifier/Tuner/Tape/CD section: Approx. 280 × 327 × 425 mm

Mass: Approx. 10.0 kg

Design and specifications are subject to change without notice.

MINI HI-FI COMPONENT SYSTEM

9-877-534-04
2006J16-1
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Home Audio Division
Published by Sony Techno Create Corporation

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer: Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

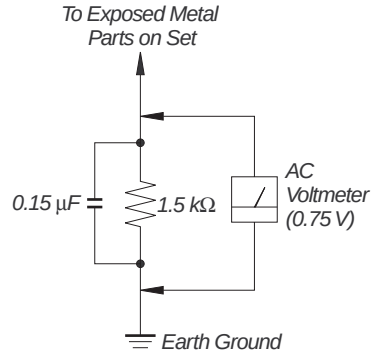

Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

The release method of a CD disc tray LOCK function

There is a disc lock function for the disc theft prevention for a demonstration at a shop front in this machine.
Procedue:
1. Press the I/⏻ button to turn the set on.
2. Press two buttons of ■ and ⏏ (EJECT) simultaneously for five seconds.
3. The message "LOCKED" is displayed and the tray is locked. (Even if exiting from this mode, the tray is still locked.)
4. Press two buttons of ■ and ⏏ (EJECT) simultaneously for five seconds again.
5. The message "UNLOCKED" is displayed and the tray is unlocked.
6. To exit from this mode, press the I/⏻ button to turn the set off.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.
- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing
- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

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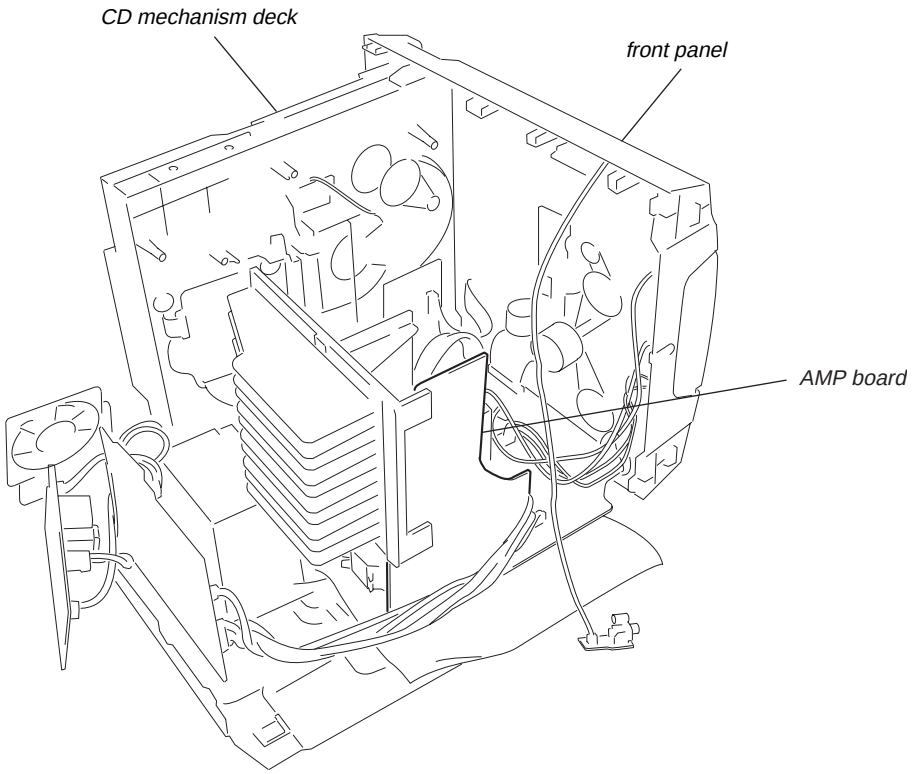
SECTION 1
SERVICING NOTE

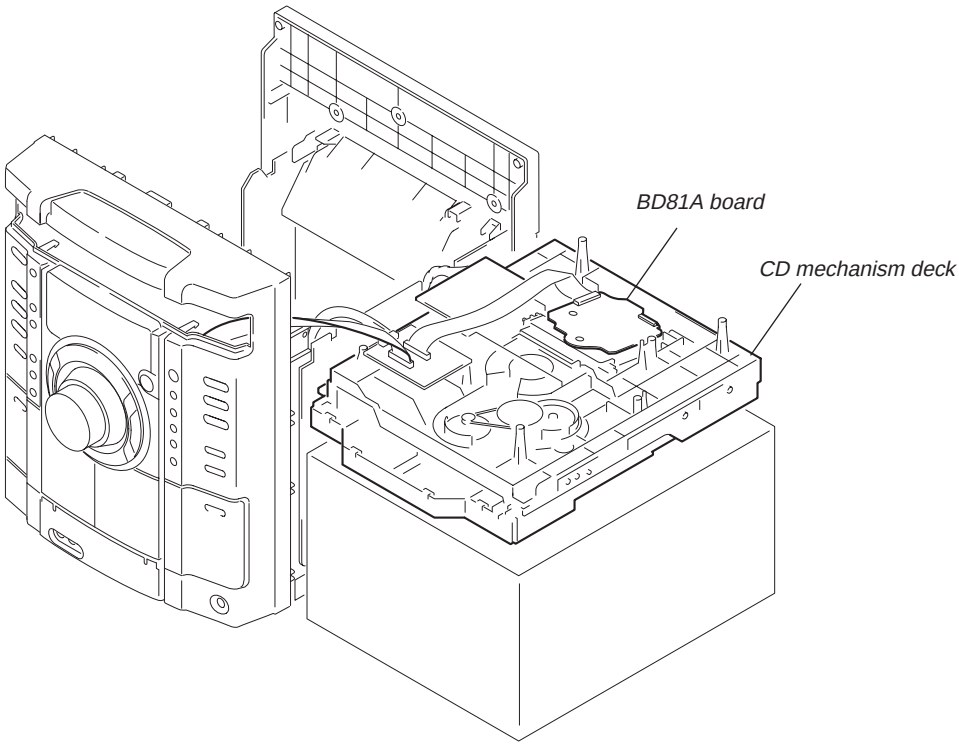
- **SERVICE POSITION -1 (AMP BOARD)**

  To inspect the AMP board, turn both of the front panel and the CD mechanism deck so that the left side of the product faces down.



- **SERVICE POSITION -2 (BD81A BOARD)**

  Remove the CD mechanism deck and place it on top of the pedestal as shown.
  Inspect the BD81A bard in this set up.



SECTION 2
GENERAL

List of button locations and reference pages

How to use this page

Use this page to find the location of buttons and other parts of the system that are mentioned in the text.

Illustration number

TAPE A/B 33 (18, 19, 20, 24)

Name of button/part — Reference page

Main unit

ALPHABETICAL ORDER

A – O

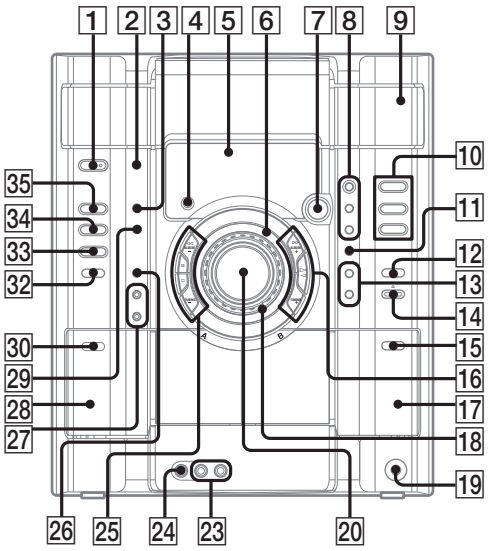
ALBUM + 16 (12, 14, 19)
ALBUM – 25 (12, 14, 19)
CD 35 (9, 11, 14, 19, 20)
CD SYNC 27 (19)
Deck A 28 (18)
Deck B 17 (18, 19, 20, 24)
DISC 1 – 3 10 (12, 14, 35)
DISC SKIP/EX-CHANGE 12 (11, 12, 14, 19)
Disc tray 9 (11)
DISPLAY 2 (17, 27, 28)
Display window 5
EFFECT ON/OFF 8 (22)
ENTER 11 (14, 15, 22)
EQ BAND 7 (22)
GAME 32 (20, 23, 30)
GAME INPUT AUDIO L/R jacks 23 (20, 29)
GAME INPUT VIDEO jack 24 (29)
GAME MIXING 26 (23)
GROOVE 8 (21)
ILLUMINATION 3 (28)
Operation Dial (– EQ +/⏮ ⏭) 6 (12, 14, 19, 22)

P – Z

P FILE 13 (22)
PHONES jack 19
PLAY MODE 29 (12, 14, 18, 19, 20, 35)
Power illuminator 18 (28)
PRESET EQ 13 (22)
REC PAUSE/START 27 (19, 20, 23, 24)
Remote sensor 4
SURROUND 8 (23)
TAPE A/B 33 (18, 19, 20, 24)
TUNER/BAND 34 (15, 16, 20)
TUNING MODE 29 (15, 16, 35)
TUNING + 16 (15, 16)
TUNING – 25 (15, 16)
VOLUME control 20 (21)

BUTTON DESCRIPTIONS

I/⏻ (power) 1 (8, 16, 27, 30, 33, 35)
⏸ (pause) 25 (12, 19)
⏏ (eject) 14 (11)
PUSH ⏏ (deck B) (eject) 15 (18)
■ (stop) 25 (12, 19, 24, 35)
⏩ (fast forward) 16 (12, 19)
▷ (play) 16 (12, 18, 19)
⏪ (rewind) 25 (12, 19)
⏏ PUSH (deck A) (eject) 30 (18)



Remote control

ALPHABETICAL ORDER

A – E

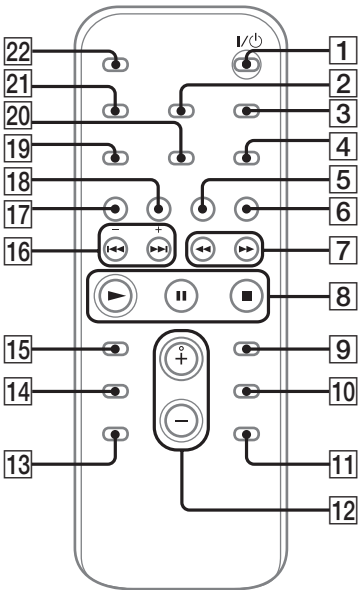
ALBUM – 13 (12, 14)
ALBUM + 11 (12, 14)
CD 18 (11, 14)
CLEAR 15 (14)
CLOCK/TIMER SELECT 2 (26, 27)
CLOCK/TIMER SET 3 (10, 25, 26)
DISC SKIP 10 (12, 14)
DISPLAY 21 (17, 27, 28)
ENTER 9 (10, 14, 15, 25, 26)
EQ 14 (22)

F – Z

FM MODE 4 (17)
FUNCTION 6 (11, 14, 15, 16)
PLAY MODE 20 (12, 14, 18)
REPEAT 4 (13)
SLEEP 22 (25)
TAPE 17
TUNER BAND 5 (15, 16)
TUNER MEMORY 19 (15)
TUNING MODE 20 (15, 16)
VOLUME +/– 12 (21, 25)

BUTTON DESCRIPTIONS

I/⏻ (power) 1 (8, 26)
◀◀/▶▶ (rewind/fast forward) 7 (12, 19)
–/+ (tuning) 16 (15)
I◀◀ /▶▶I (go back/go forward) 16 (10, 12, 19)
► (play) 8 (12, 18)
II (pause) 8 (12, 19)
■ (stop) 8 (12, 19)



Setting the clock

Use buttons on the remote for the operation.

1 Press I/⏻ to turn on the system.

2 Press CLOCK/TIMER SET.

3 Press I◀◀ or ▶▶I repeatedly to set the hour.

4 Press ENTER.

5 Press I◀◀ or ▶▶I repeatedly to set the minute.

6 Press ENTER.

The clock starts working.

To adjust the clock

1 Press CLOCK/TIMER SET.

2 Press I◀◀ or ▶▶I repeatedly to select "CLOCK SET", then press ENTER.

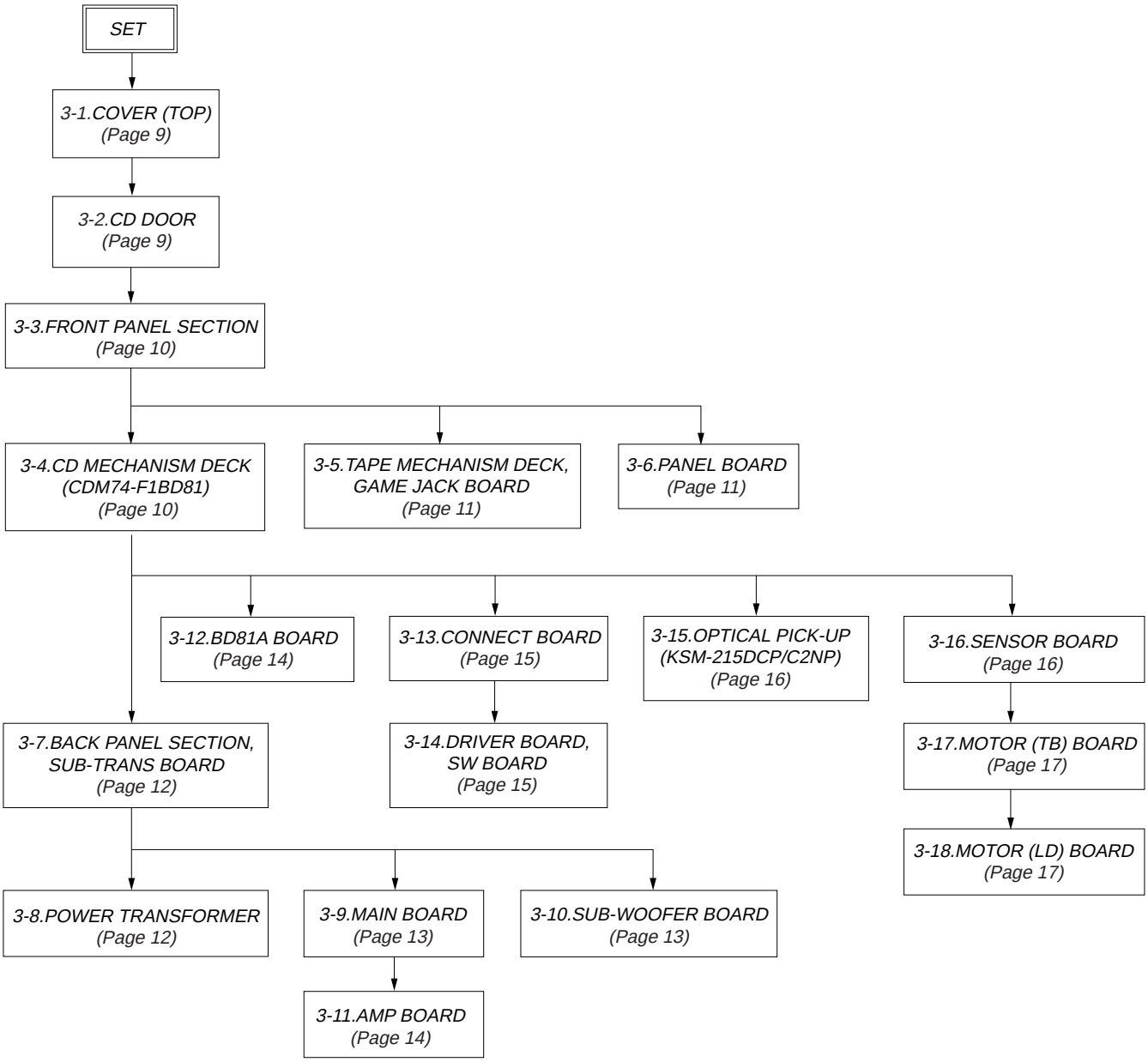
3 Do the same procedures as step 3 to 6 above.

Notes

The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

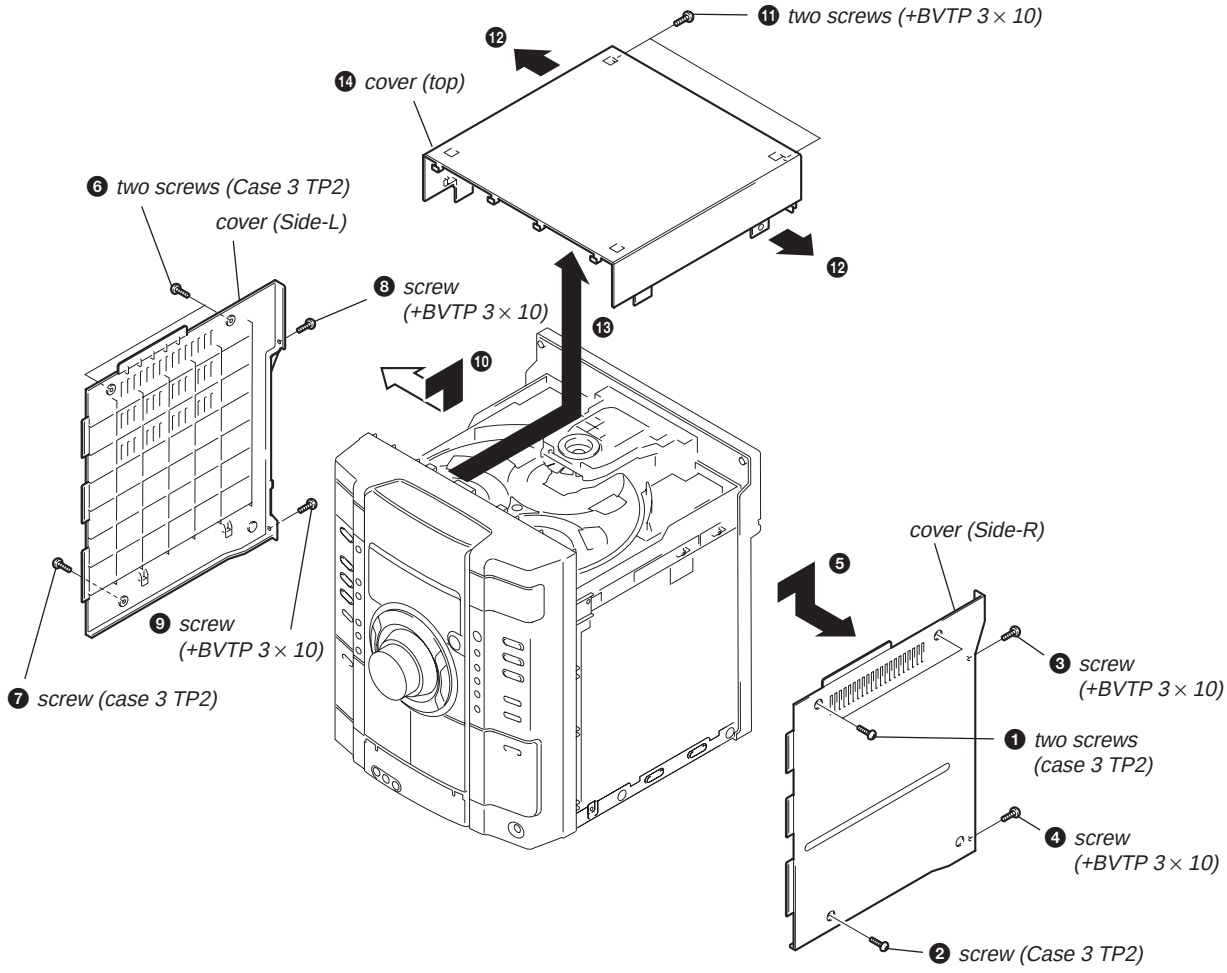
SECTION 3
DISASSEMBLY

Note: Disassemble the unit in the order as shown below.

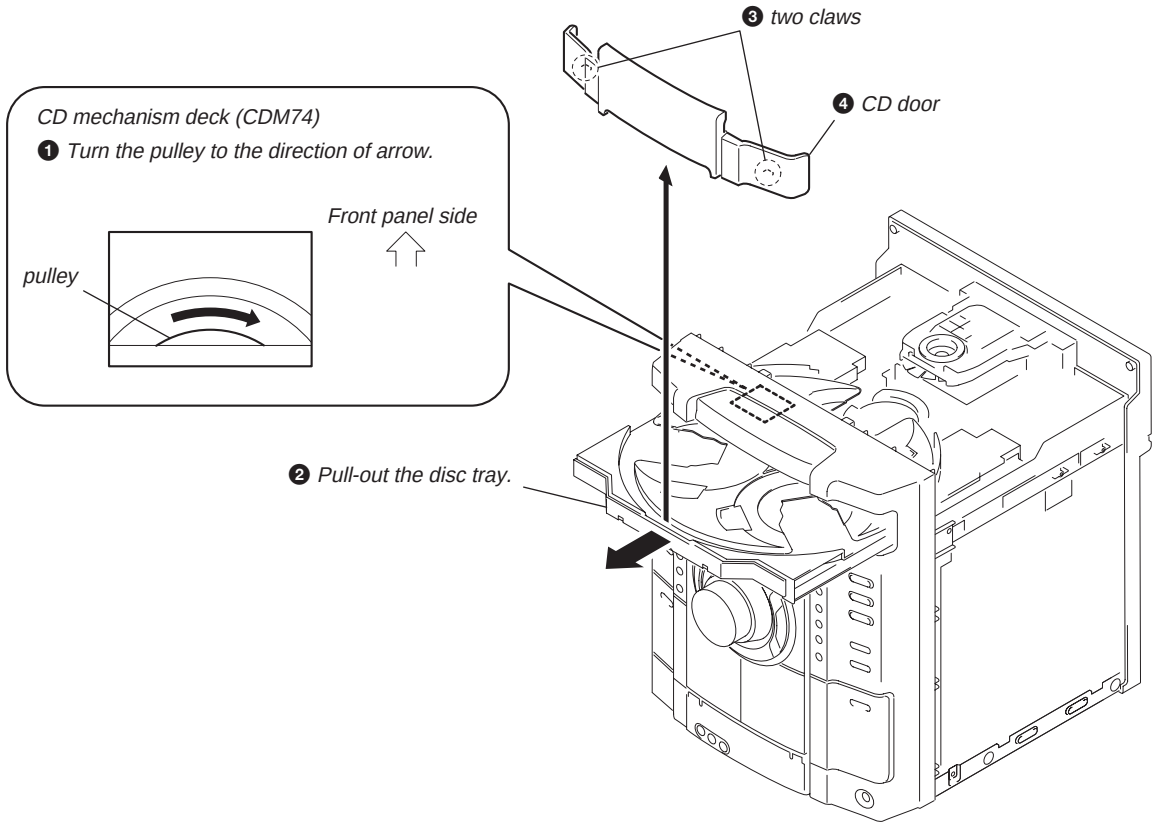


Note: Follow the disassembly procedure in the numerical order given.

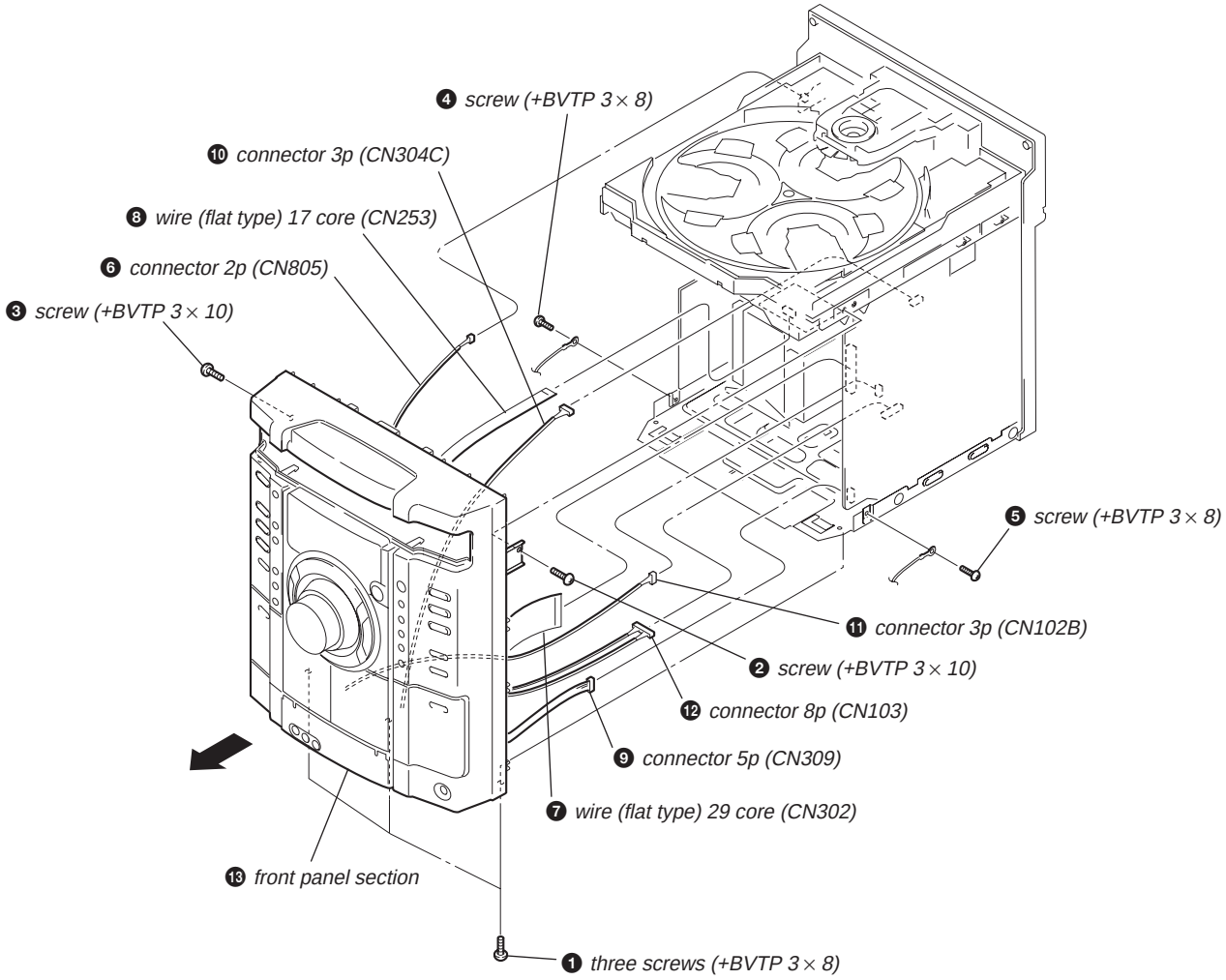
3-1. COVER (TOP)



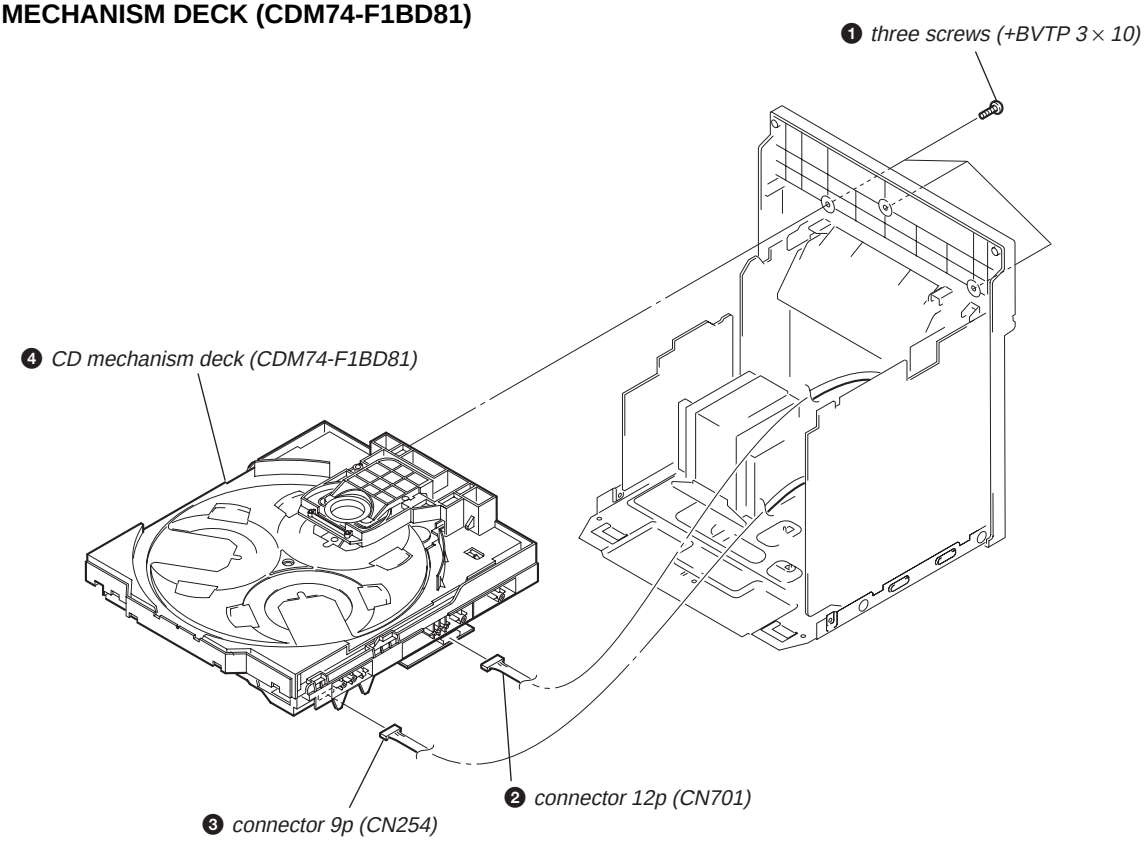
3-2. CD DOOR


❸ two claws
❹ CD door
CD mechanism deck (CDM74)
❶ Turn the pulley to the direction of arrow.
Front panel side
pulley
❷ Pull-out the disc tray.

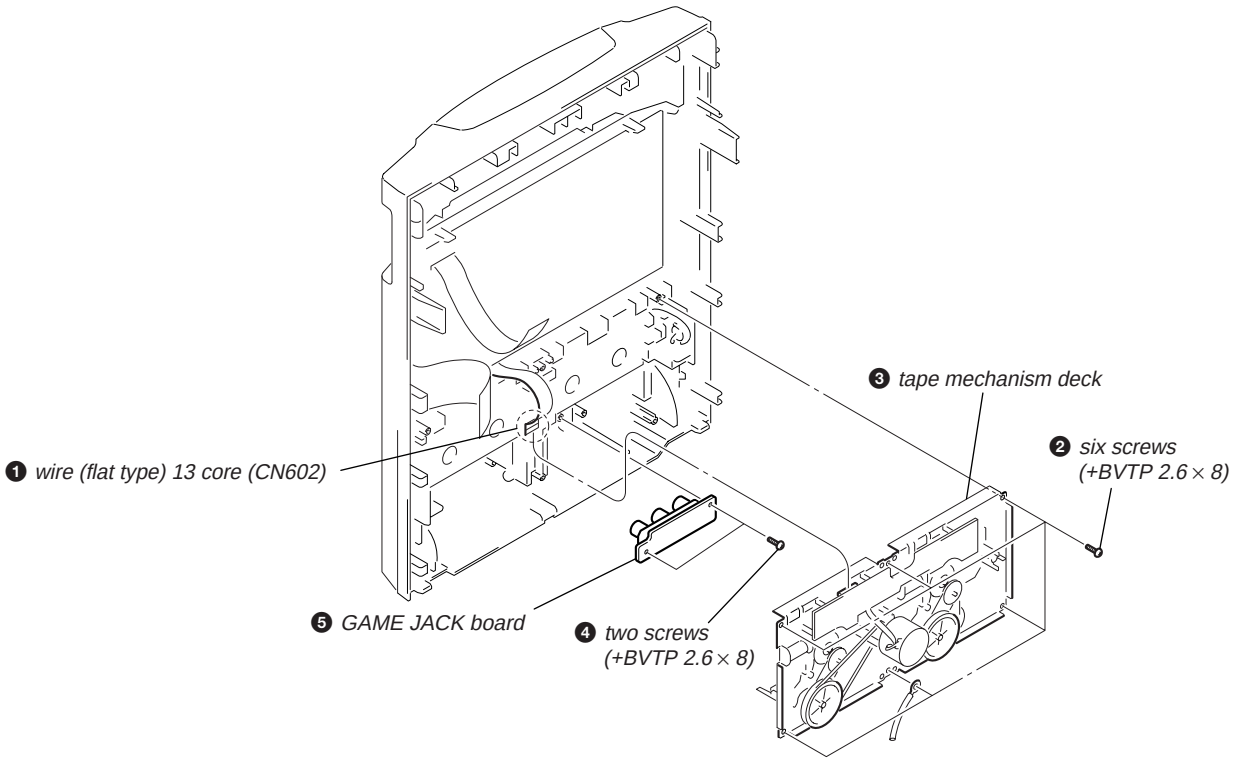
3-3. FRONT PANEL SECTION


❹ screw (+BVTP 3× 8)
❿ connector 3p (CN304C)
❽ wire (flat type) 17 core (CN253)
❻ connector 2p (CN805)
❸ screw (+BVTP 3× 10)
❺ screw (+BVTP 3× 8)
⓫ connector 3p (CN102B)
❷ screw (+BVTP 3× 10)
⓬ connector 8p (CN103)
❾ connector 5p (CN309)
❼ wire (flat type) 29 core (CN302)
⓭ front panel section
❶ three screws (+BVTP 3× 8)

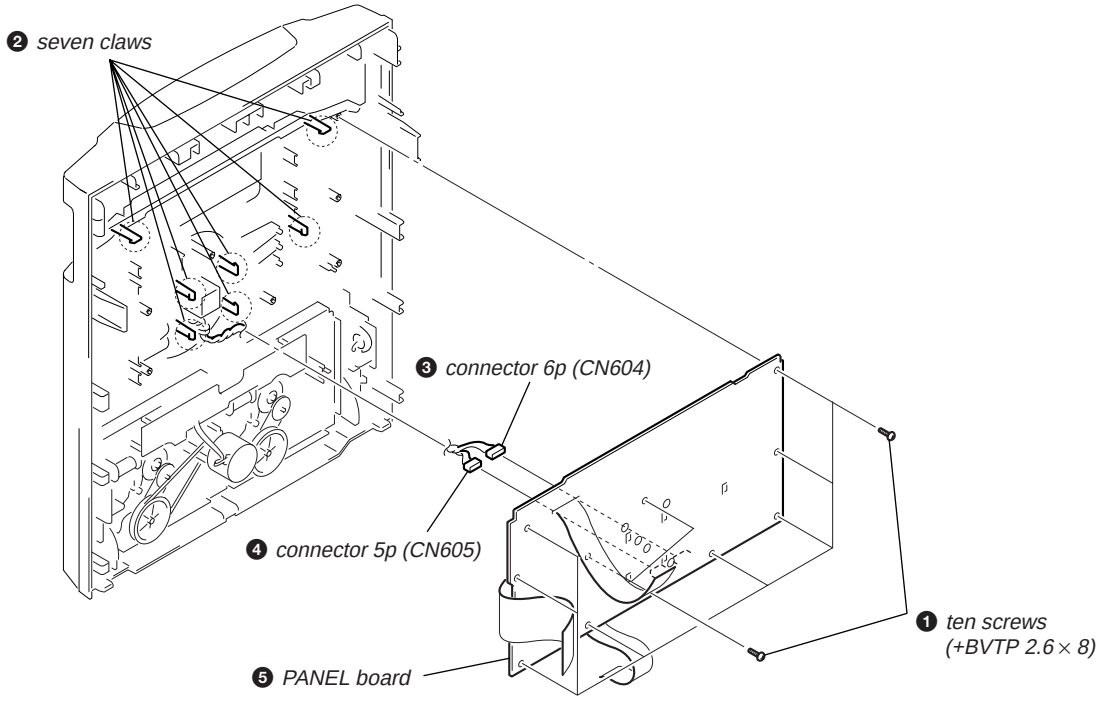
3-4. CD MECHANISM DECK (CDM74-F1BD81)



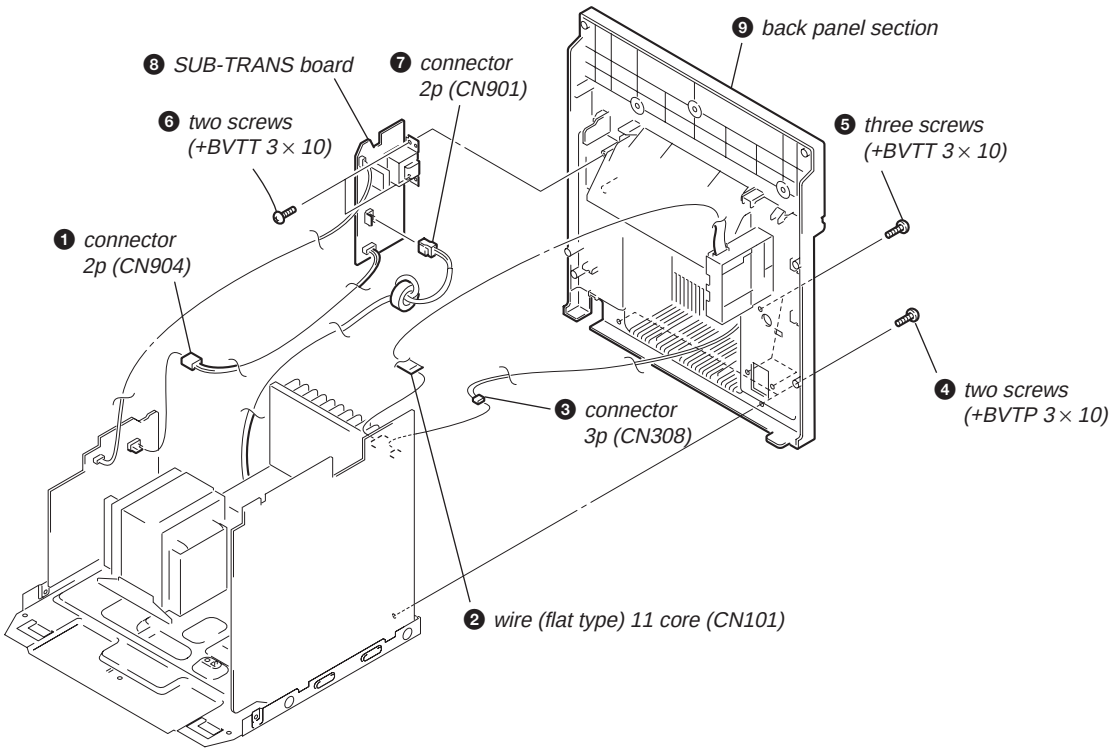
3-5. TAPE MECHANISM DECK, GAME JACK BOARD



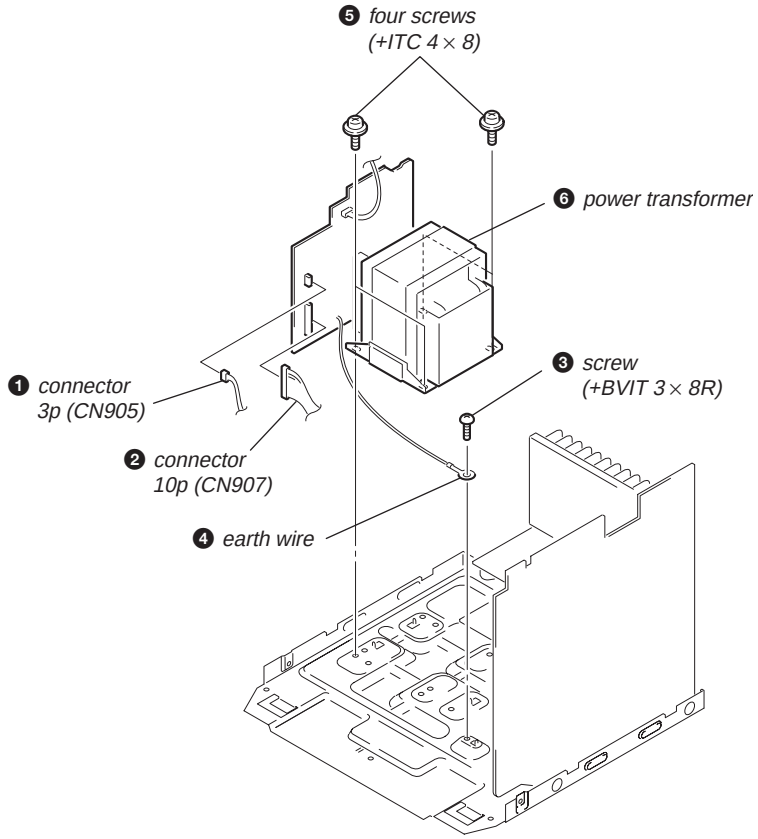
3-6. PANEL BOARD



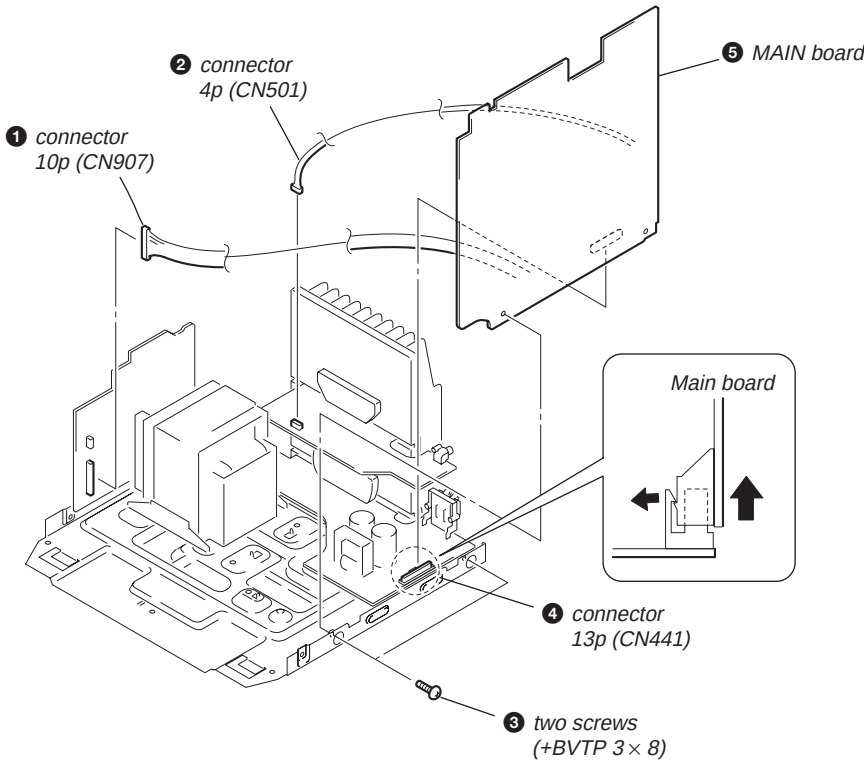
3-7. BACK PANEL SECTION, SUB-TRANS BOARD


9 back panel section
8 SUB-TRANS board
7 connector 2p (CN901)
6 two screws (+BVTT 3× 10)
5 three screws (+BVTT 3× 10)
1 connector 2p (CN904)
3 connector 3p (CN308)
4 two screws (+BVTP 3× 10)
2 wire (flat type) 11 core (CN101)

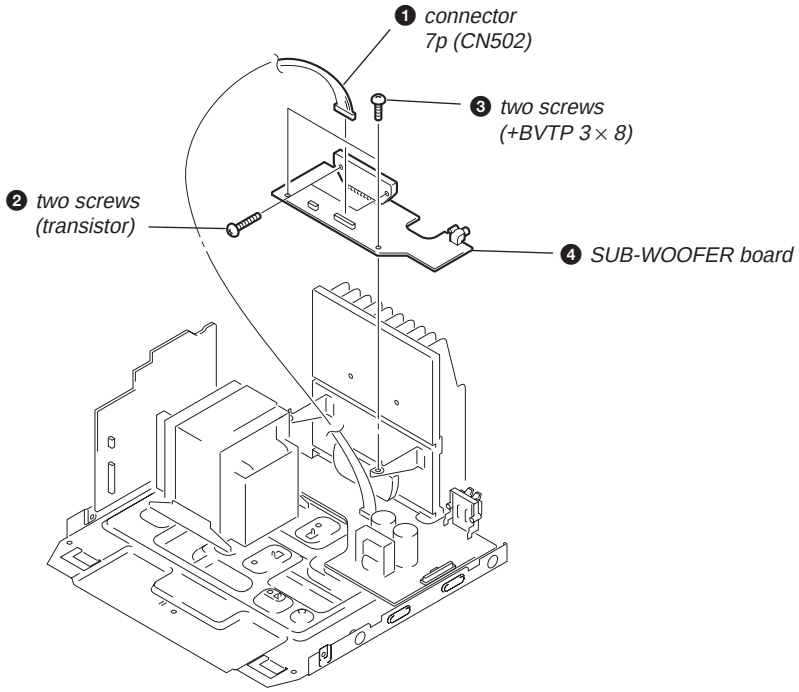
3-8. POWER TRANSFORMER



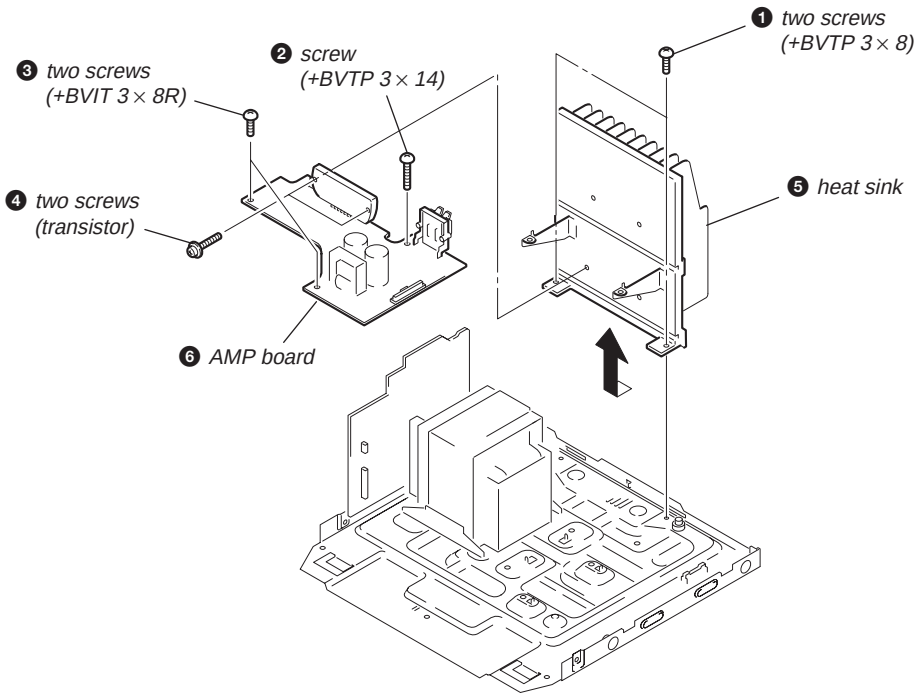
3-9. MAIN BOARD



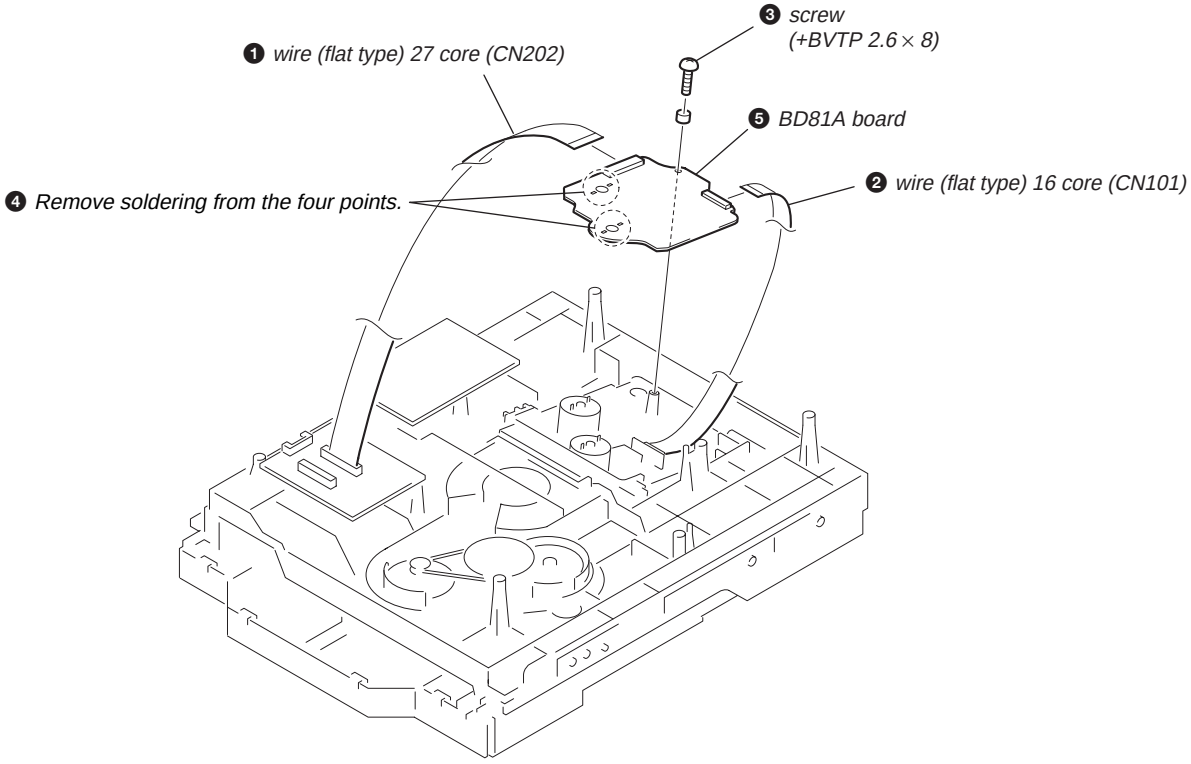
3-10. SUB-WOOFER BOARD



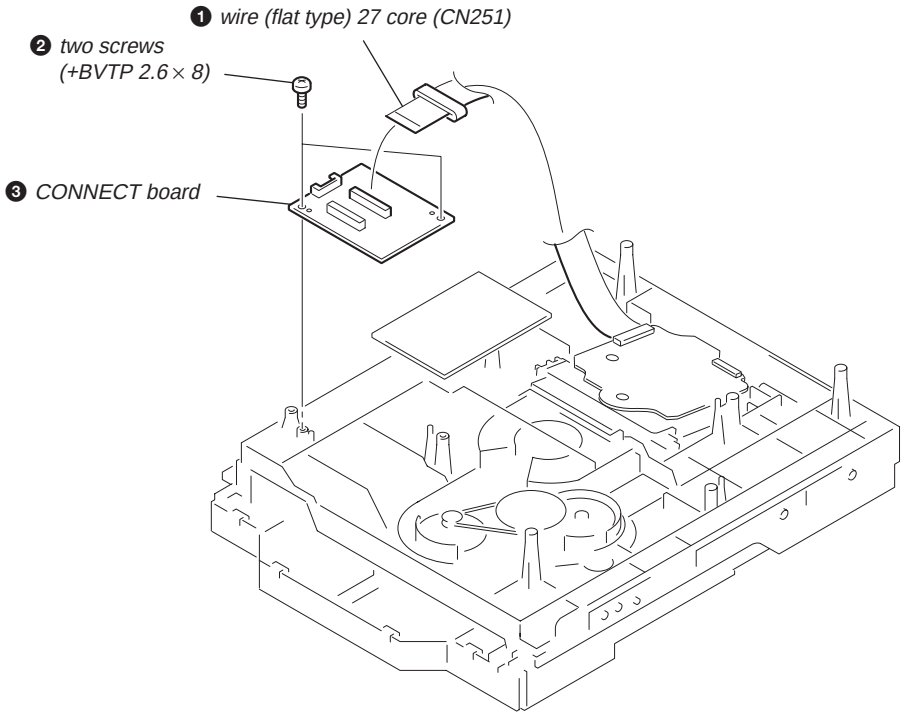
3-11. AMP BOARD



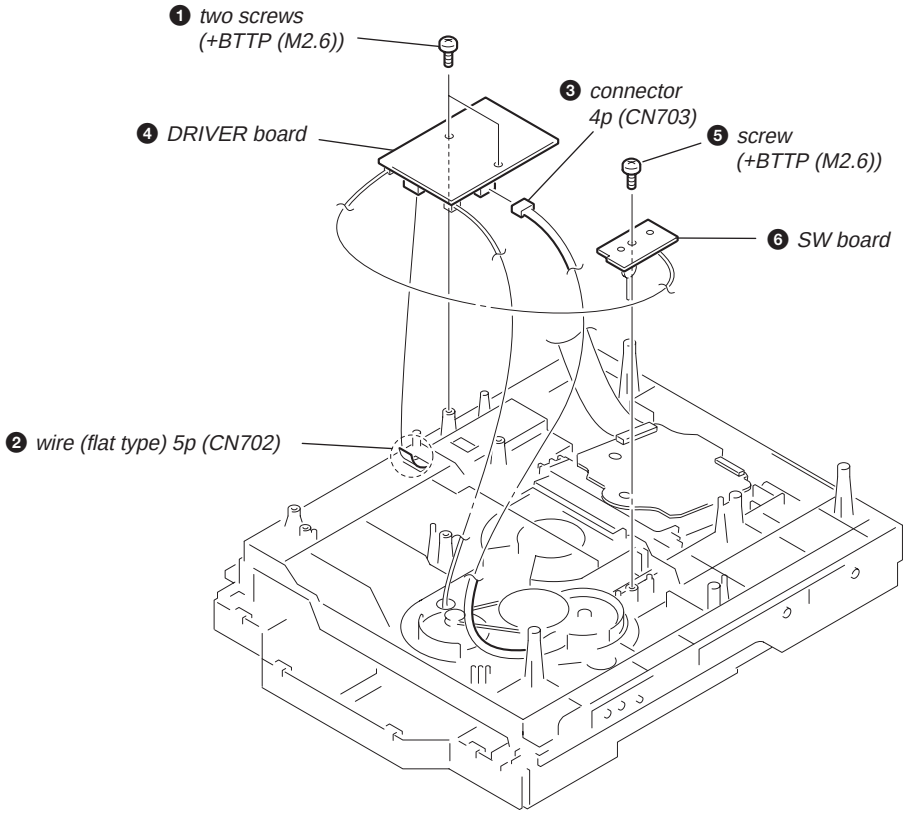
3-12. BD81A BOARD


❸ screw
(+BVTP 2.6× 8)
❶ wire (flat type) 27 core (CN202)
❺ BD81A board
❷ wire (flat type) 16 core (CN101)
❹ Remove soldering from the four points.

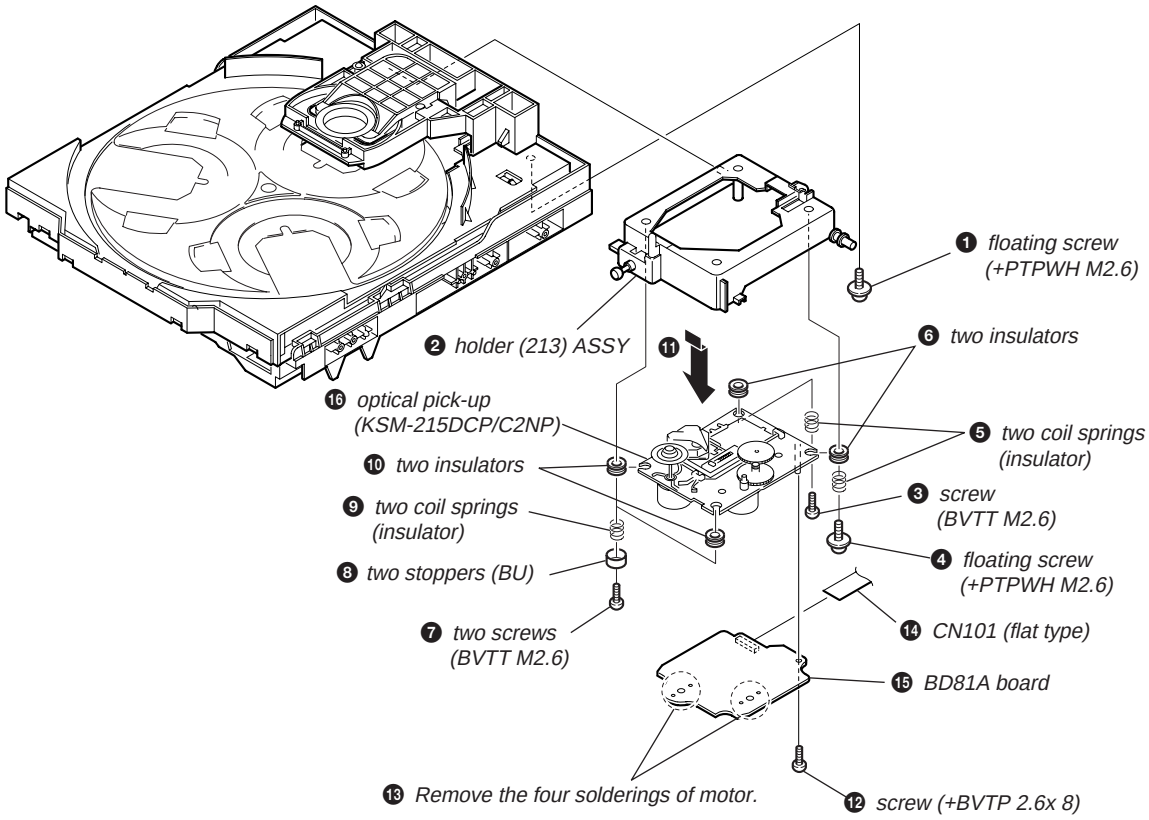
3-13. CONNECT BOARD



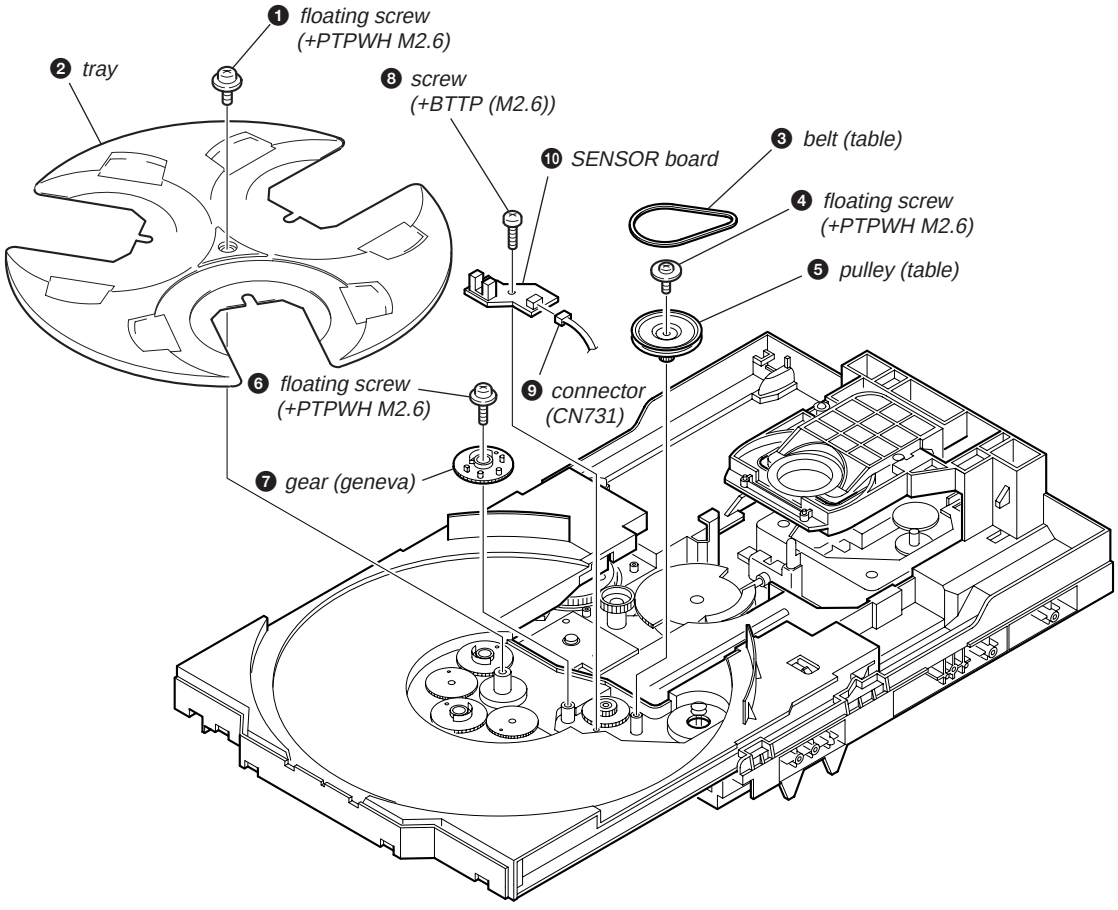
3-14. DRIVER BOARD, SW BOARD



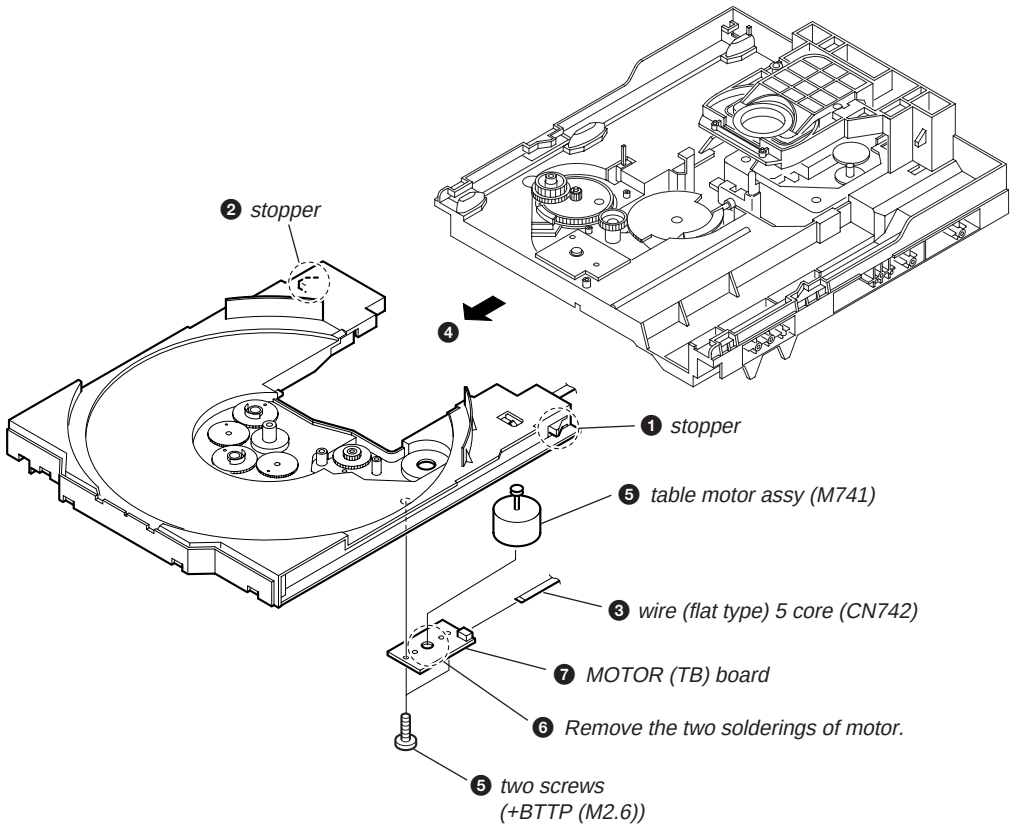
3-15. OPTICAL PICK-UP (KSM-215DCP/C2NP)


❶ floating screw (+PTPWH M2.6)
❷ holder (213) ASSY
❻ two insulators
❺ two coil springs (insulator)
❸ screw (BVTT M2.6)
❹ floating screw (+PTPWH M2.6)
❿ optical pick-up (KSM-215DCP/C2NP)
❿ two insulators
❾ two coil springs (insulator)
❽ two stoppers (BU)
❼ two screws (BVTT M2.6)
⓮ CN101 (flat type)
⓯ BD81A board
⓭ Remove the four solderings of motor.
⓬ screw (+BVTP 2.6x 8)

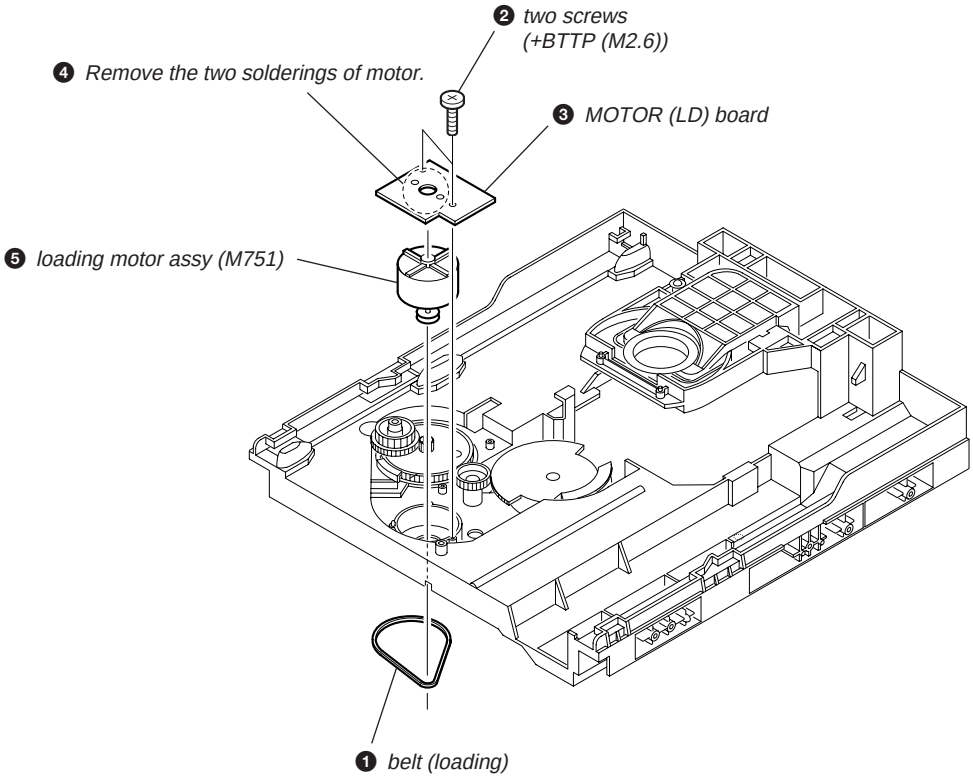
3-16. SENSOR BOARD



3-17. MOTOR (TB) BOARD



3-18. MOTOR (LD) BOARD



SECTION 4
TEST MODE

[Change-over of AM Tuner Step between 9 kHz and 10 kHz]

- A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM".
3. Press [I/⏻] button to turn the set OFF.
4. Press [PLAY MODE/TUNING MODE] and [I/⏻] buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.

[Cold Reset]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons [■], [PLAY MODE/TUNING MODE], and [DISC 1] simultaneously.
2. The fluorescent indicator tube displays "COLD RESET" and the set is reset.

[Aging Mode]

This mode can be used for operation check of CD section and tape deck section.

- If an error occurred:
  The aging operation stops and is displayed status.
- If no error occurs:
  The aging operation continues repeatedly.

1. Operating method of Aging Mode

Press [I/⏻] button to turn the set ON and select "CD" of the function.

1) Set three discs in tray. Press the [PLAY MODE/TUNING MODE] button to set the "ALL DISCS" mode, and the [PRESET EQ] button to "REPEAT" off.
2) Load the tapes recording use into both decks.
3) Press three buttons [■], [PLAY MODE/TUNING MODE], and [EX-CHANGE] simultaneously.
4) Aging operations of CD and tape are started at the same time.
5) To exit the aging mode, perform [Cold Reset].

2. Aging mode in CD section

1) Operation during aging mode

- In the agining mode ,the program is excuted in the following sequence.

(1) The disc tray opens and closes.
(2) The disc tray turns to select a disc 3.
(3) The pick-up accesses to the first track, and plays 3 seconds.
(4) The pick-up accesses to the last track, and plays 3 seconds.
(5) The disc tray opens and closes.
(6) The disc tray turns to select a disc 1.
(7) The same operation starts like step (3).
(8) After a disc 1 aging operation, a disc 2 is selected.
(9) When an aging operation of a disc 3 is completed, the display "AGING ****" value increases.
(10) If no error occurs, the aging operation continues repeatedly.

2) Error display

Disc error	
Display	Error
E00D01022	Focus error (No disc)
E00D02022	Sub Q error (Focus is good)
E00D02023	TOC reading error
E00D02014	Access error (Unable within regular time)

Mechanism error	
Display	Error
E00M__E_0	Error during opening tray
E00M__C_2	EX-CHANGE disc error
E00M__D_0	Error during closing tray
E00M__F_3	EX-OPEN error
E00M__D_5	EX-CLOSE error
E00M__C_2	Chuck-up error
E00M__C_3	Unchucking error

3. Aging mode in Tape Deck section

1) Operation during aging mode

- In the agining mode, the program is excuted in the following sequence.

Step	Operation	Display
1	Rewind the TAPE A	TAPE AAG-1
2	Rewind the TAPE B	TAPE BAG-2
3	Play the TAPE A (1 minute)	TAPE AAG-2
4	Stop the TAPE A (1 second)	TAPE AAG-3
5	Play the TAPE A (3 minutes)	TAPE AAG-4
6	Rewind(AMS) the TAPE A	TAPE AAG-5
7	F.F.(AMS) the TAPE A	TAPE AAG-6
8	Play the TAPE B (1 minute)	TAPE BAG-2
9	Stop the TAPE B (1 second)	TAPE BAG-3
10	Record the TAPE B (3 minutes)	TAPE BAG-4
11	Rewind(AMS) the TAPE B	TAPE BAG-5
12	F.F.(AMS) the TAPE B	TAPE BAG-6

2) Error display

- If error occurred, the display remains like "TAPE BAG-2".

4. Exiting from the aging mode

- Be sure to perform Cold Reset to exit from the aging mode.

[PANEL Test Mode]

- All fluorecent segments and LEDs are tested.
- Keyboard check.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. To enter the test mode, press the three buttons [■], [PLAY MODE/TUNING MODE] and [ENTER] simultaneously.
3. All segments and LEDs (without STANDBY LED) are turned on.
4. Press [▮▮] and [ENTER] buttons simultaneously, and the key check mode is activated.
5. The message “KEY 0 0 0 ” is displayed.
   Each time a button is pressed, the key code number is displayed.
6. Press [▮▮] and [ENTER] buttons simultaneously, and the key count mode is activated.
7. The message “KEYCNT 0” is displayed.
   Each time a button is pressed, “KEYCNT 0” value increased. However, once a button is pressed, it is no longer taken into account.
8. Press [▮▮] and [ENTER] buttons simultaneously, and the head phone detect mode is activated.
9. The message “H_P OFF” is displayed when a headphone jack is not inserted.
   “H_P ON ” is displayed when a headphone jack is inserted.
10. Press [▮▮] and [ENTER] buttons simultaneously, and the volume control detect mode is activated.
11. The message “VOLUME FLAT” is displayed.
    “VOLUME UP” is displayed if rotating [MASTER VOLUME] knob clockwise, or “VOLUME DOWN” is displayed if rotating counterclockwise.
12. To exit from the GC test mode after the head phone detect mode, press [▮▮] and [ENTER] buttons simultaneously.

[Version and Destination Display Mode]

- The version or destination is displayed.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. To enter the test mode, press the three buttons [■], [PLAY MODE/TUNING MODE] and [DISC 2] simultaneously.
3. The destination is displayed.
4. Press [DISPLAY] buttons simultaneously.
5. The version is displayed.
6. To exit from this mode, press the three buttons [■], [PLAY MODE/TUNING MODE] and [DISC 2] simultaneously and press [I/⏻] button to turn the set OFF.

[CD Service Mode]

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function “CD”.
3. To enter the test mode, press three buttons [■], [PLAY MODE/TUNING MODE], and [⏏] simultaneously.
4. The CD service mode is selected.
5. With the CD in stop status, press [▶▶] button to move the pick-up to outside track, or press [◀◀] button to inside track.
6. To exit from this mode, perform as follows:
   1) Move the pick-up to the most inside track.
   2) Press [I/⏻] button to turn the set OFF.

Note:
- Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

[MC Test Mode]

- This mode is used to test the function of the equalizer.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. To enter the test mode, press the three buttons [■], [PLAY MODE/TUNING MODE] and [DISC 3] simultaneously.
3. Press the [EQ +] button.
   The function of the equalizer is set to “MAX”.
4. Press the [EQ -] button.
   The function of the equalizer is set to “MIN”.
5. Press the [PRESET EQ] button.
   The function of the equalizer is set to “EQ FLAT”.
6. [MASTER VOLUME] up and down.
   “VOLUME MIN” “VOLUME 16” “VOLUME MAX” is displayed.
7. Press the [GROOVE] button.
   The message “VACS OFF” or “VACS ON” is displayed.
8. To exit from this mode, press [I/⏻] button to turn the set OFF.

[CD Ship Mode (LOCK)]

- This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function “CD”.
3. Press [I/⏻] button to turn the set OFF.
4. Press [CD] button and [I/⏻] button simultaneously.
5. The “STANDBY” display blinks instantaneously, the message “LOCK” is displayed and the CD ship mode is set.

[CD Ship (LOCK) & COLD RESET MODE]

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function “CD”.
3. Press [I/⏻] button to turn the set OFF.
4. Press three buttons [■] , [CD] and [DISPLAY] simultaneously.
5. The “STANDBY” display blinks instantaneously and CD ship mode is set.
6. To fluorescent indicator tube displays “COLD RESET” and the set is reset.

[Disc Tray Lock]

Procedure:

1. Press the [I/⏻] button to turn the set ON.
2. Select the function “CD”.
3. Press two buttons of [■] and [⏏] simultaneously for five seconds.
4. The message “LOCKED” is displayed and the tray is locked. (Even if exiting from this mode, the tray is still locked.)
5. Press two buttons of [■] and [⏏] simultaneously for five seconds again.
6. The message “UNLOCKED” is displayed and the tray is unlocked.
7. To exit from this mode, press the [I/⏻] button to turn the set OFF.

[CD Repeat 5 Times Limit Release Mode]

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Select the function “CD”.
3. Press three buttons ■ , CD and ENTER simultaneously.
4. The message “LIMIT OFF” is displayed.
5. Press I/⏻ button the set OFF.

[AMP TEST MODE]

Procedure:

1. Press I/⏻ button to turn the set ON.
2. To enter the test mode, press three buttons ■ , PLAY MODE/TUNING MODE and ENTER simultaneously.
3. Press the DISPLAY button.
   The message “V0 0 0” “ 000” is displayed.
4. Press the GROOVE button.
   The message “DBFB ON” “DBFB OFF” is displayed.
5. Press the SURROUND button.
   The message “SURROUND ON” “SURROUND OFF” is displayed.
6. Press the EQ BAND button.
   The message “LOW” “MID” “HIGH” is displayed.
7. Press I/⏻ button to turn the set OFF.

SECTION 5
DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

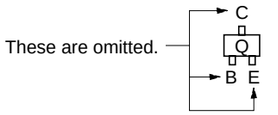
- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
  no mark : FM
  ( ) : CD STOP
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : TUNER
  : PB (DECK A)
  : PB (DECK B)
  : REC (DECK B)
  : CD
  : AUDIO

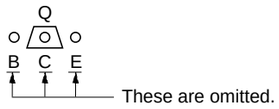
Note on Printed Wiring Boards:

- o——— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enables seeing.

Caution:	
Pattern face side: (SIDE A)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (SIDE B)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.

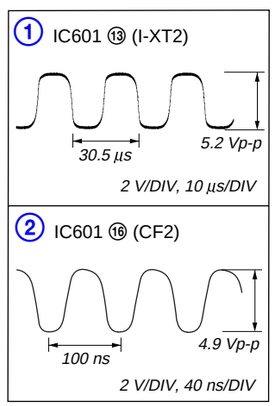




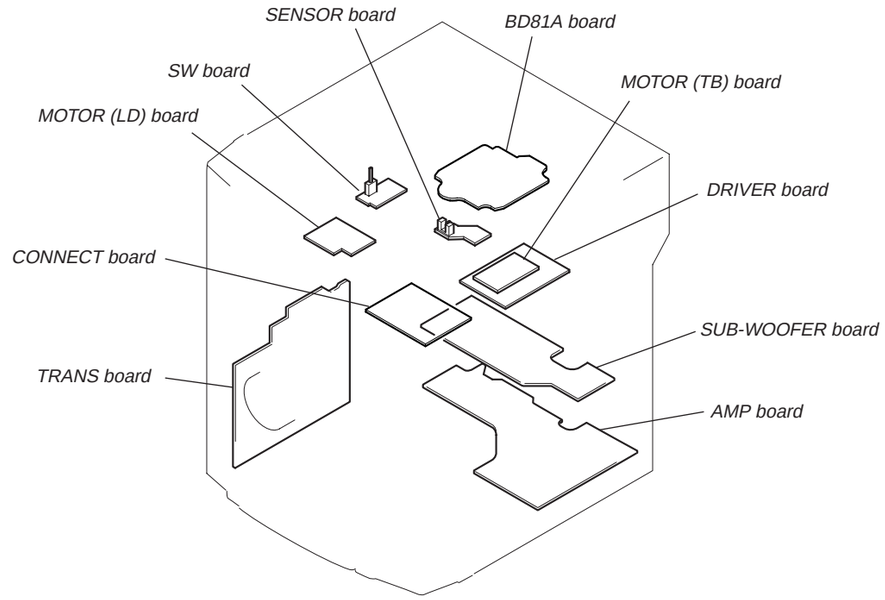
- Abbreviation
  CND : Canadian model

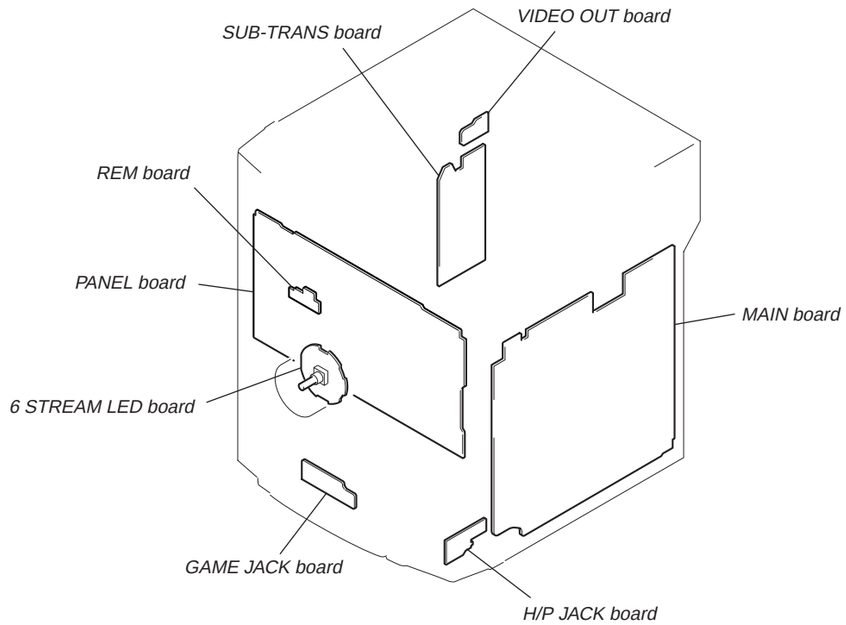
• Waveforms

– PANEL BOARD –

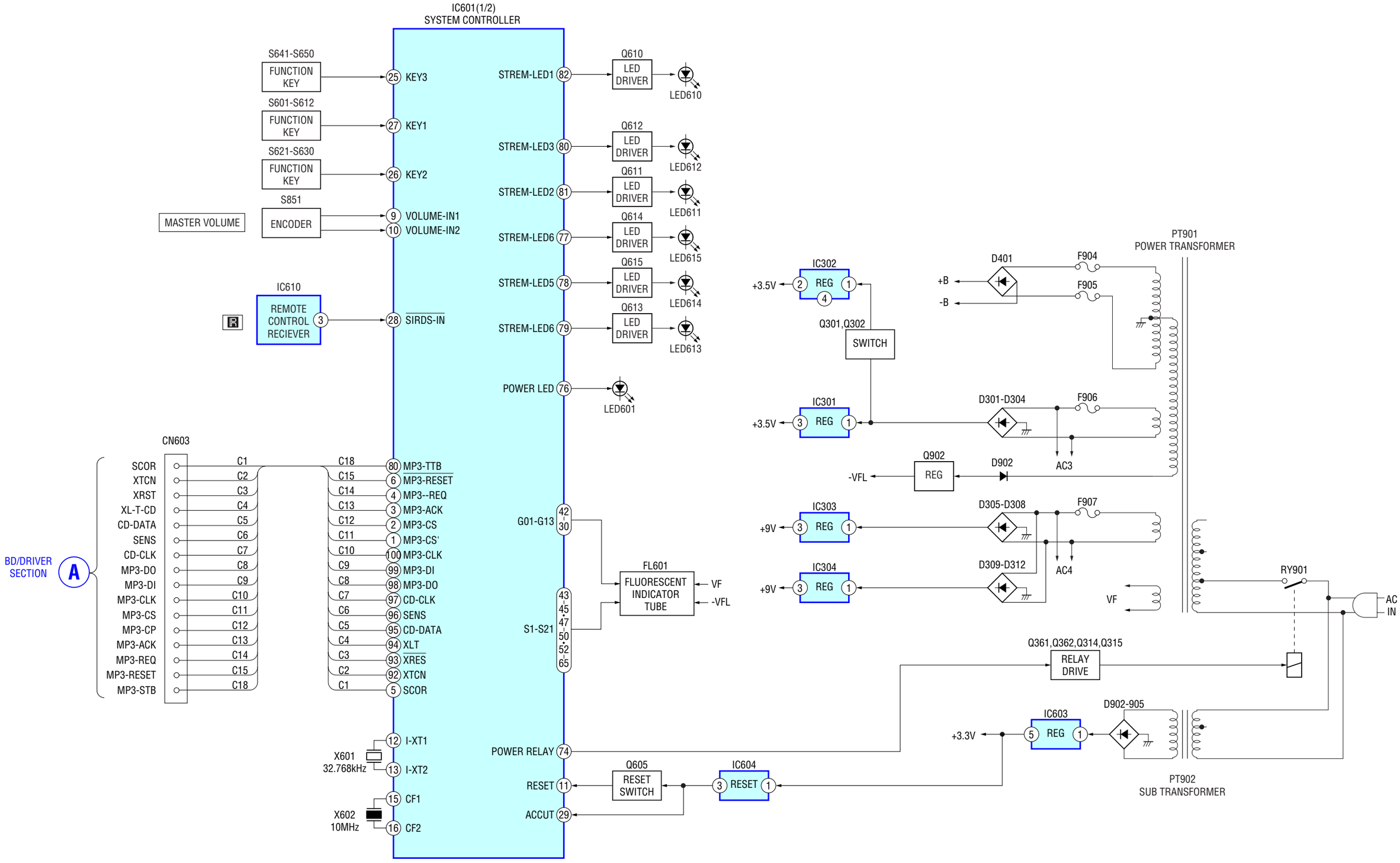


Circuit Boards Location

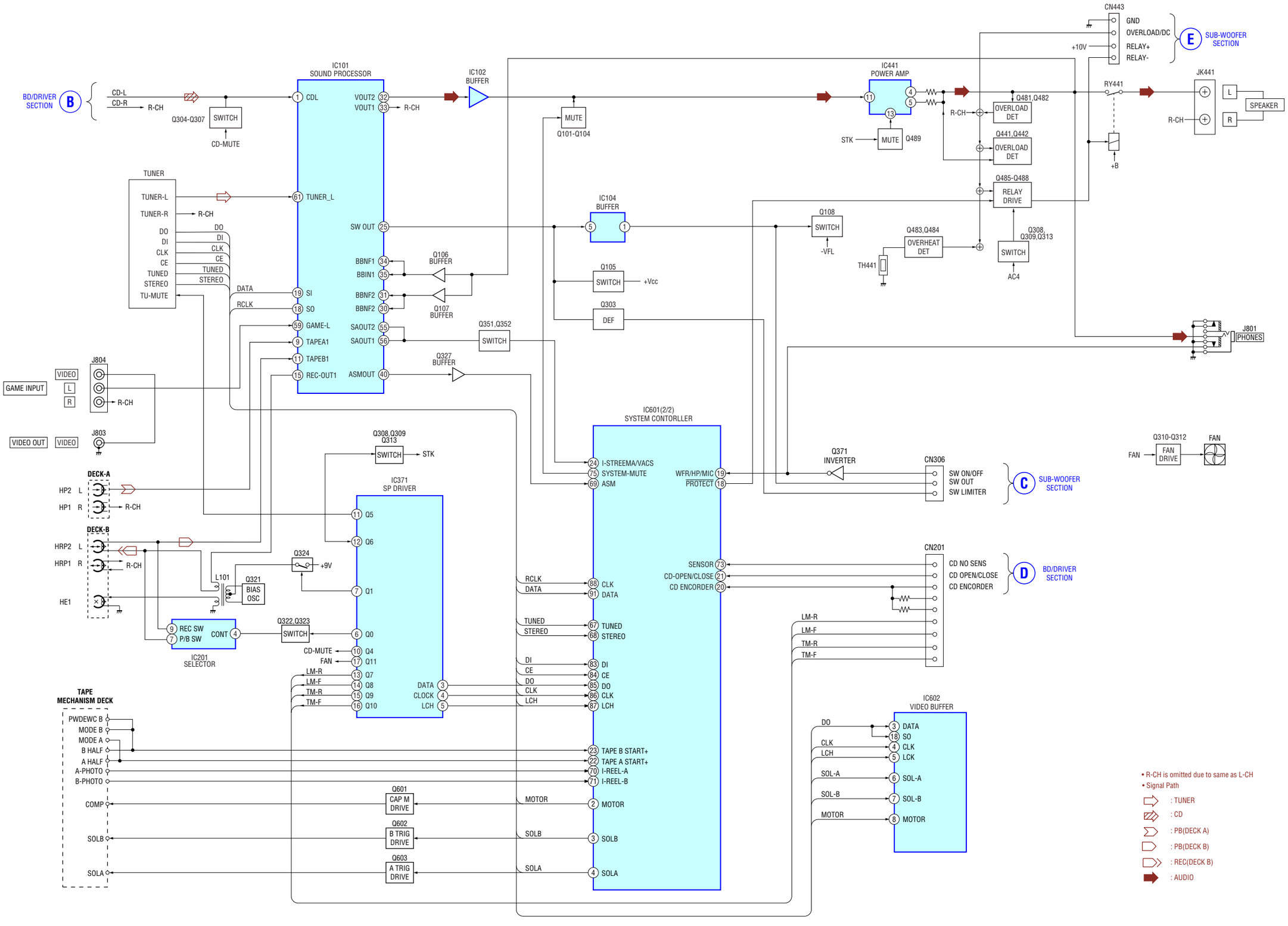




5-1. BLOCK DIAGRAMS – PANEL SECTION –

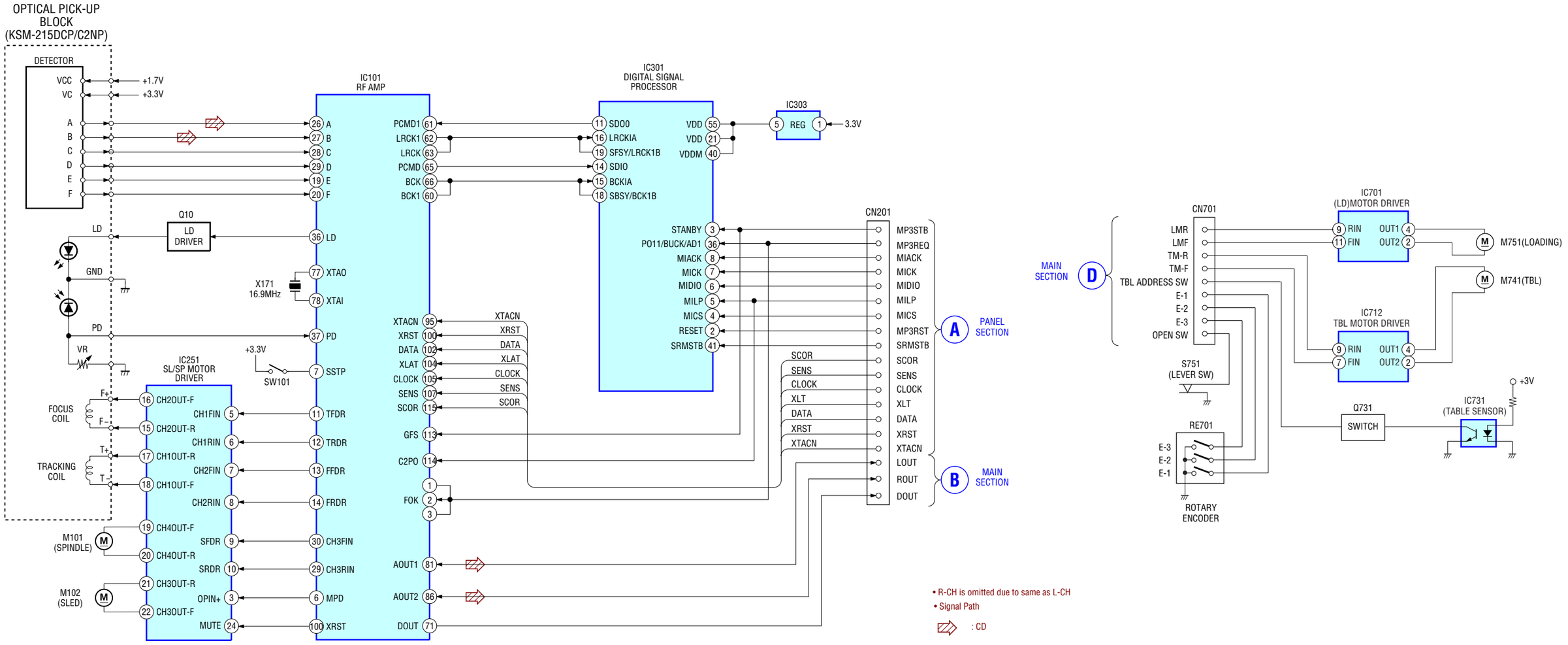


– MAIN SECTION –



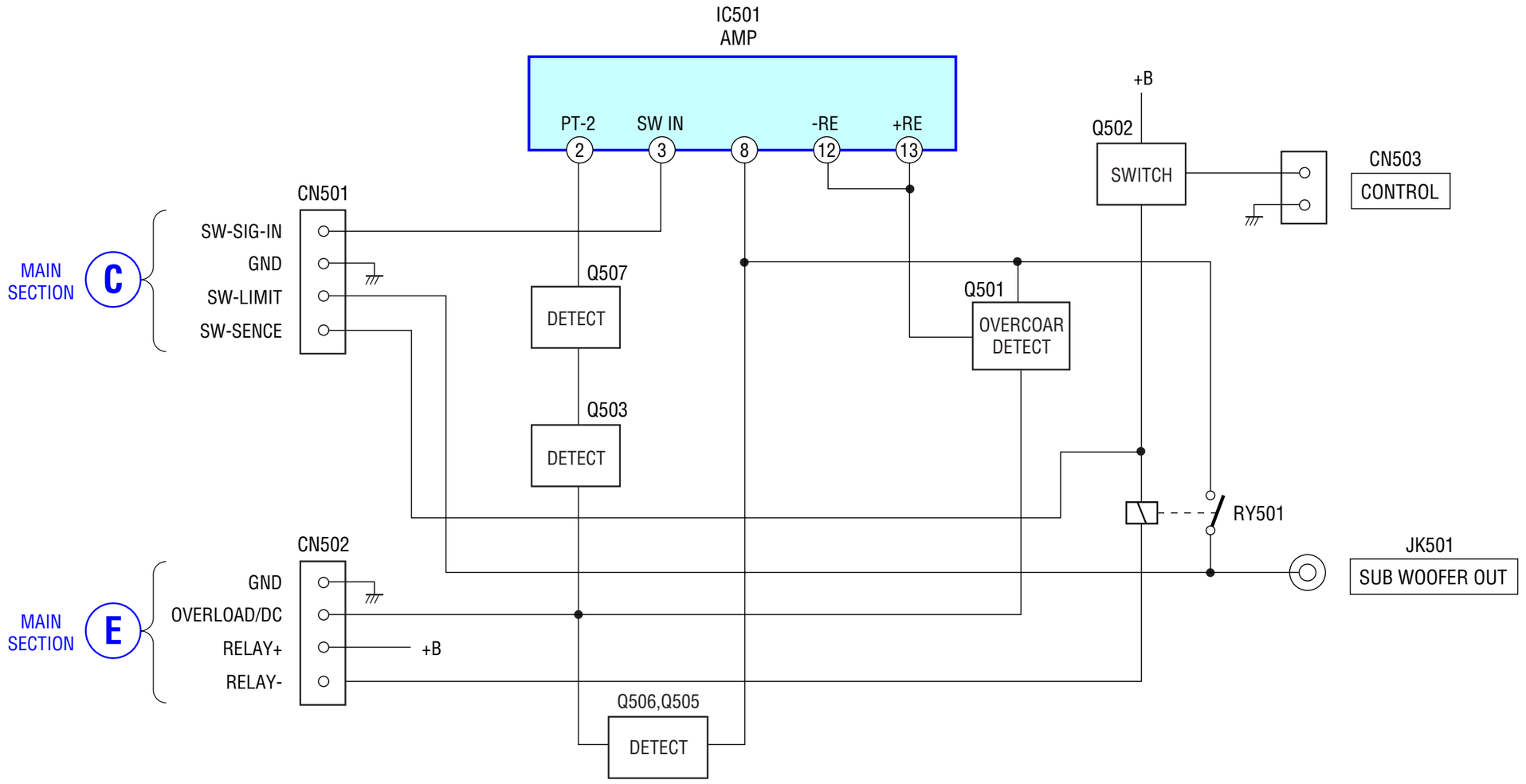
• R-CH is omitted due to same as L-CH
• Signal Path
: TUNER
: CD
: PB(DECK A)
: PB(DECK B)
: REC(DECK B)
: AUDIO

– BD/DRIVER SECTION –



• R-CH is omitted due to same as L-CH
• Signal Path
: CD

– SUB-WOOFER SECTION –

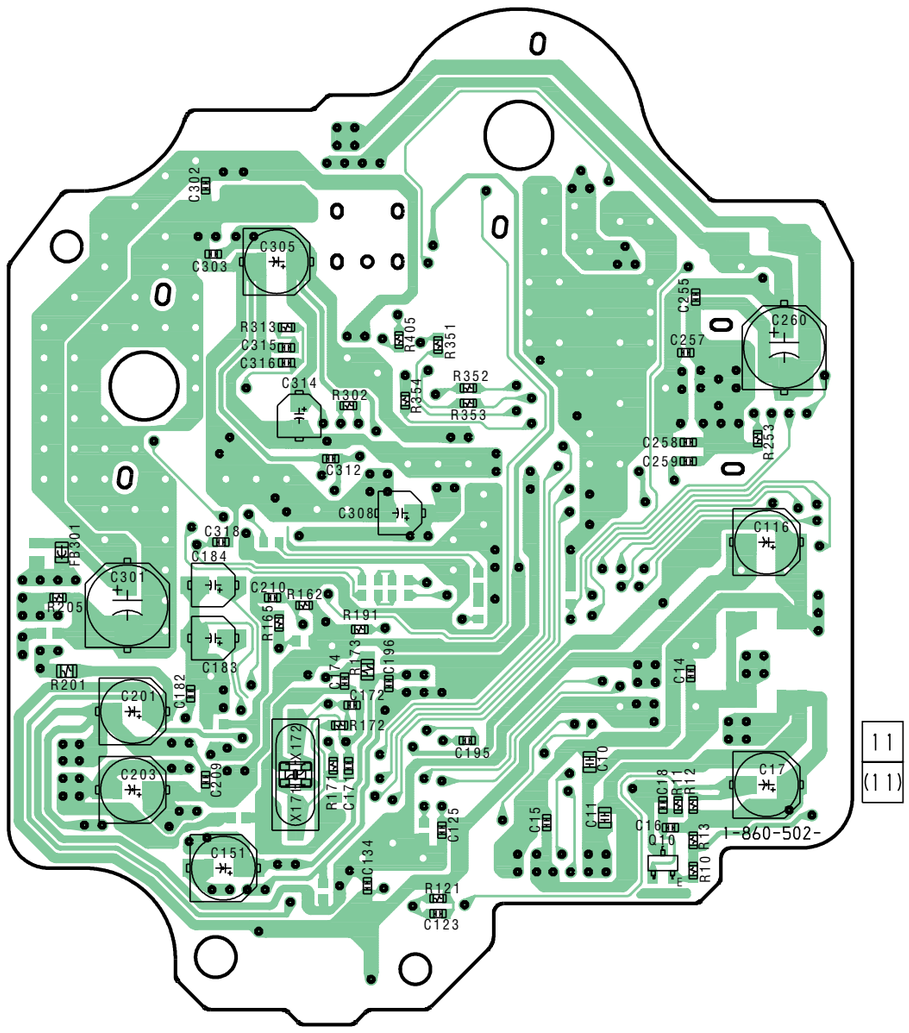


5-2. PRINTED WIRING BOARD – BD81A SECTION –

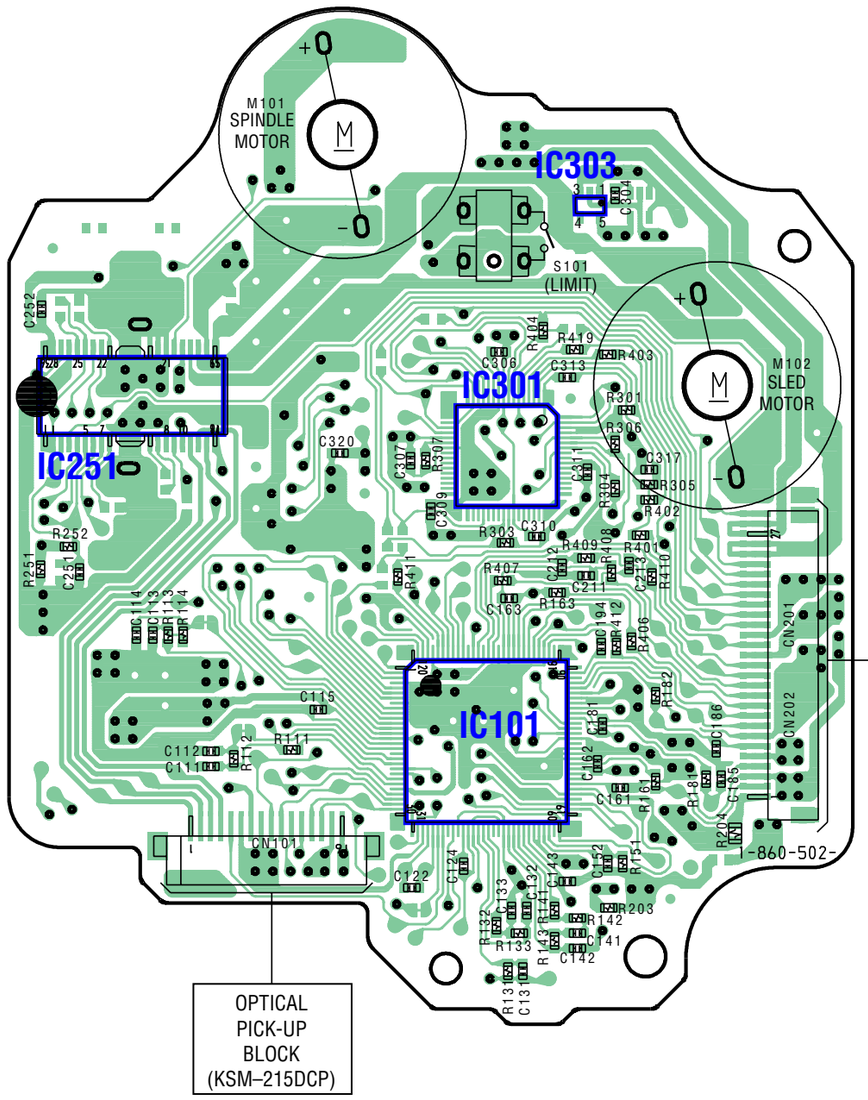
• See page 21 for Circuit Boards Location.

• : Uses unleaded solder.

【BD81A BOARD】(SIDE A)



【BD81A BOARD】(SIDE B)

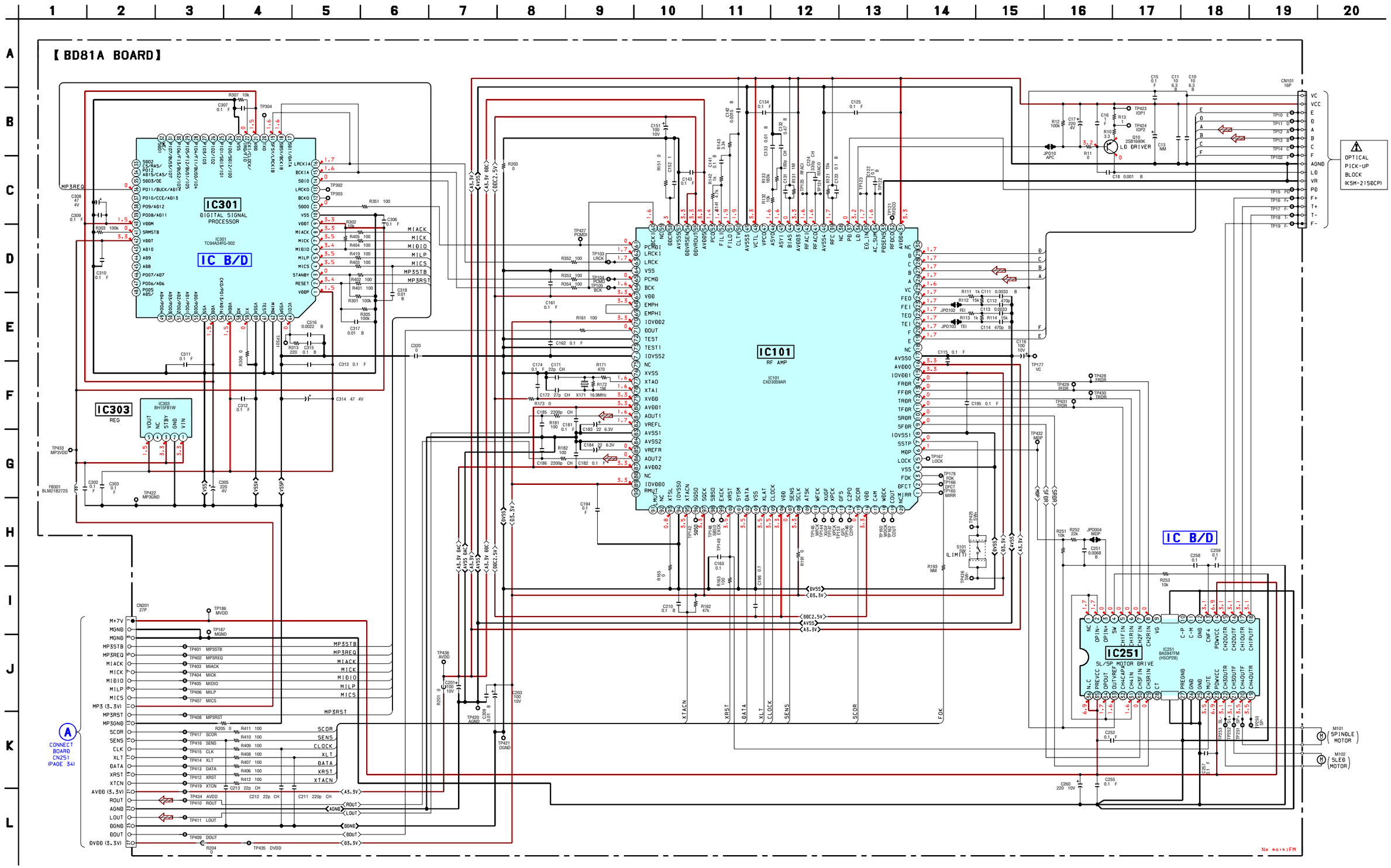


• **Semiconductor Location**

Ref. No.	Location
IC101	D-7
IC251	C-6
IC301	C-7
IC303	B-7
Q10	E-4

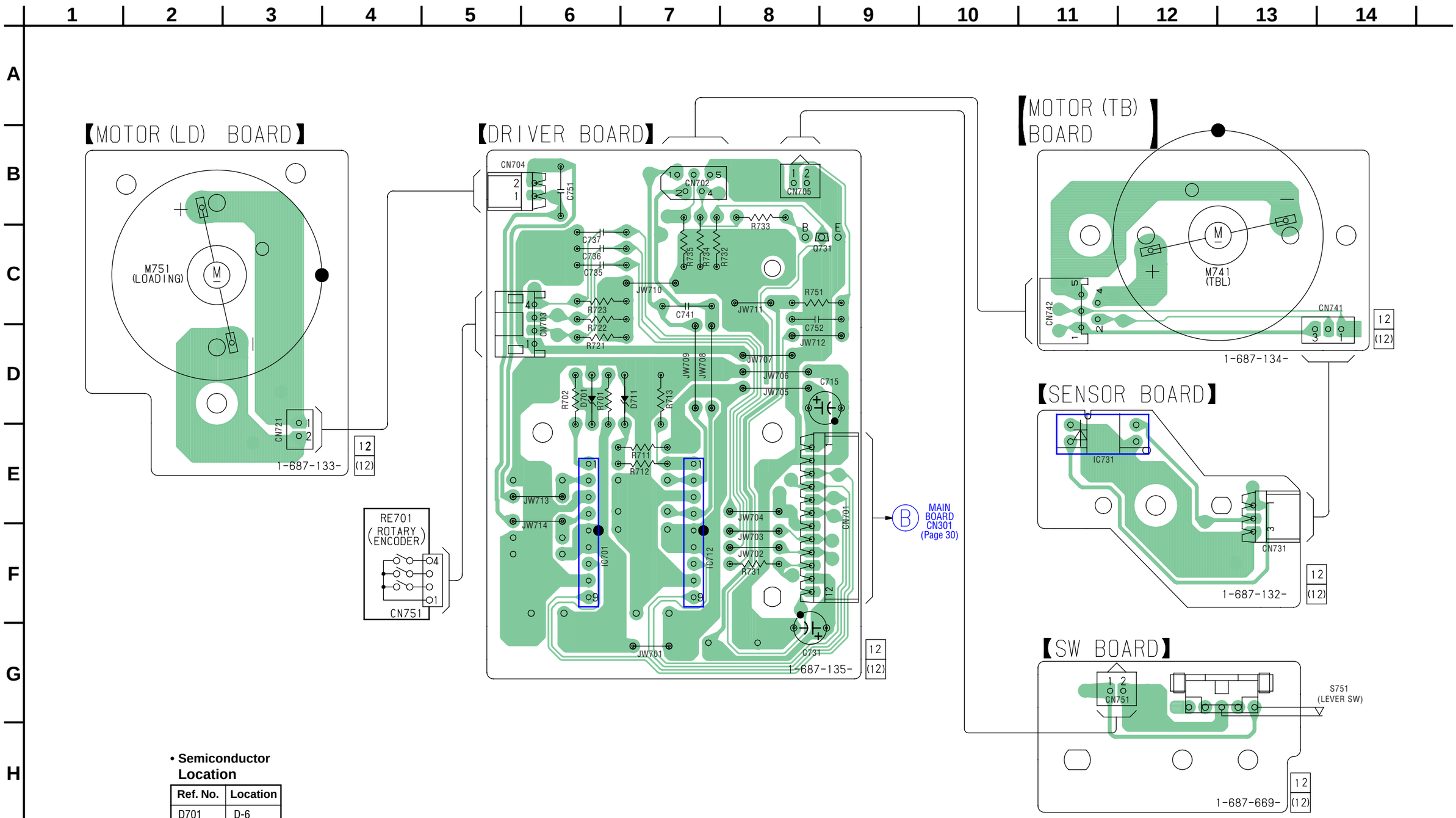
5-3. SCHEMATIC DIAGRAM – BD81A SECTION –

• See page 46 for IC PIN FUNCTION DESCRIPTION.



5-4. PRINTED WIRING BOARD – CD MECHANISM SECTION –

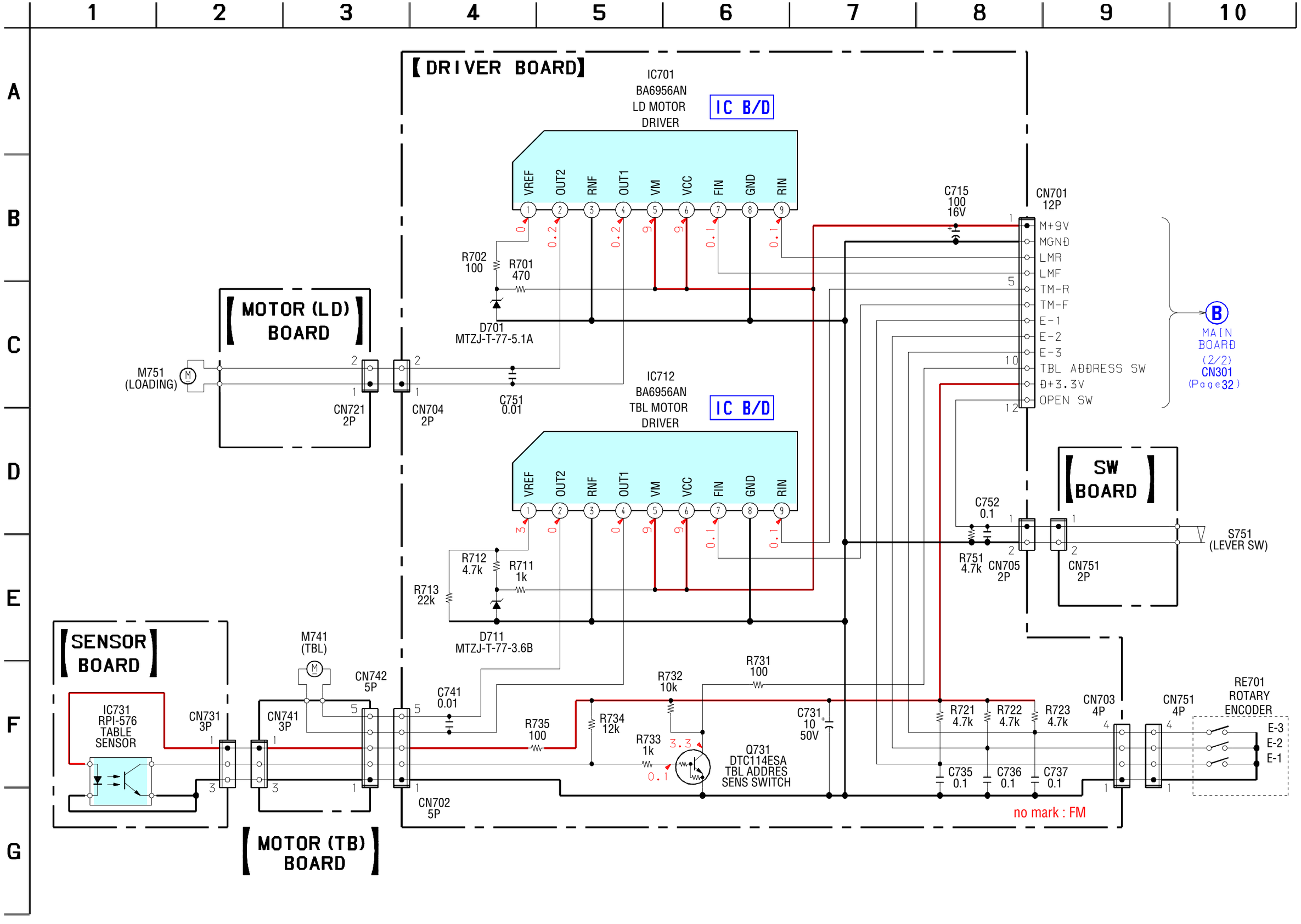
• See page 21 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location
D701	D-6
D711	D-7
IC701	F-6
IC712	F-7
IC731	E-11
Q731	C-9

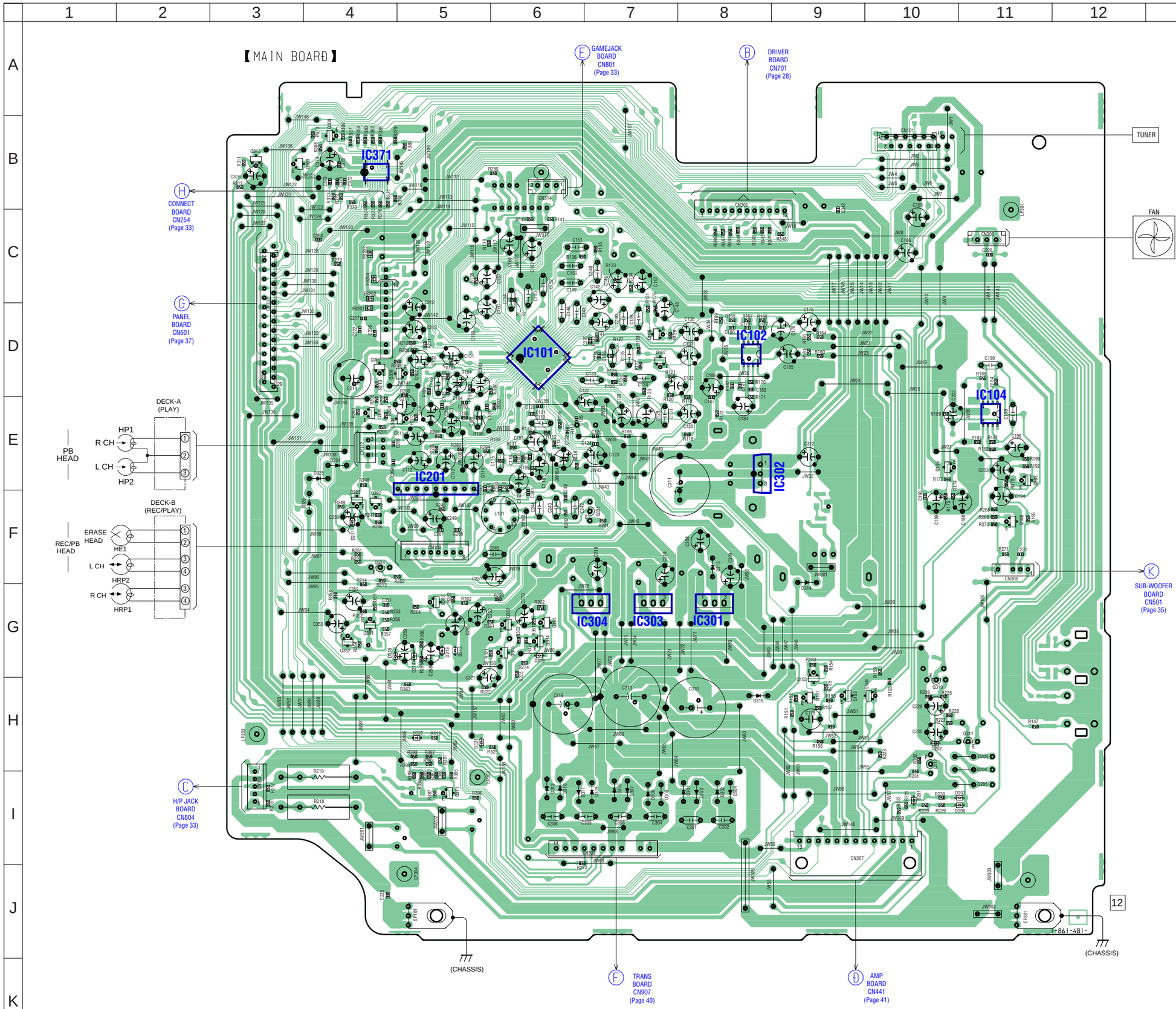
5-5. SCHEMATIC DIAGRAM – CD MECHANISM SECTION –



5-6. PRINTED WIRING BOARD – MAIN SECTION –

• See page 21 for Circuit Boards Location.

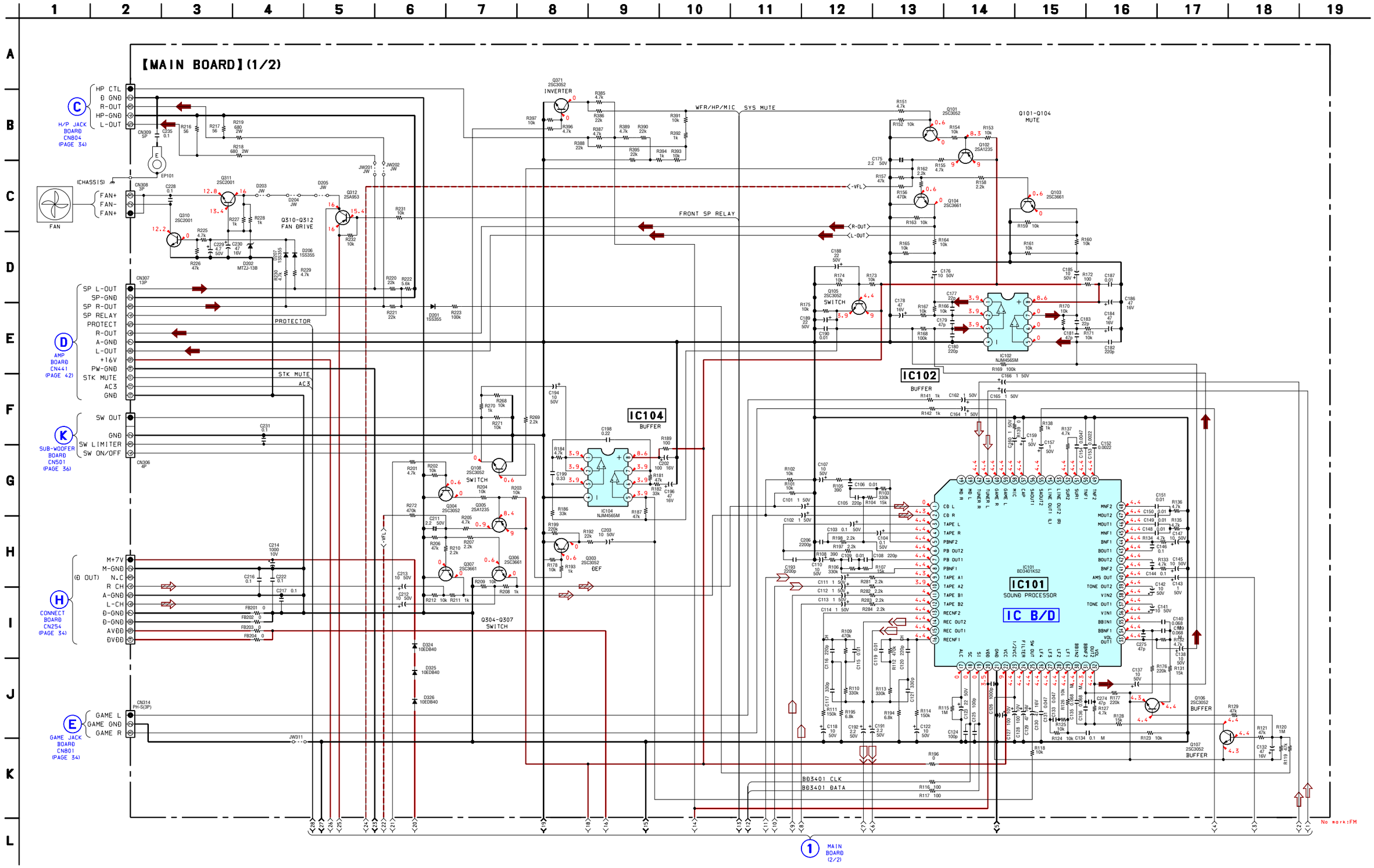
• : Uses unleaded solder.



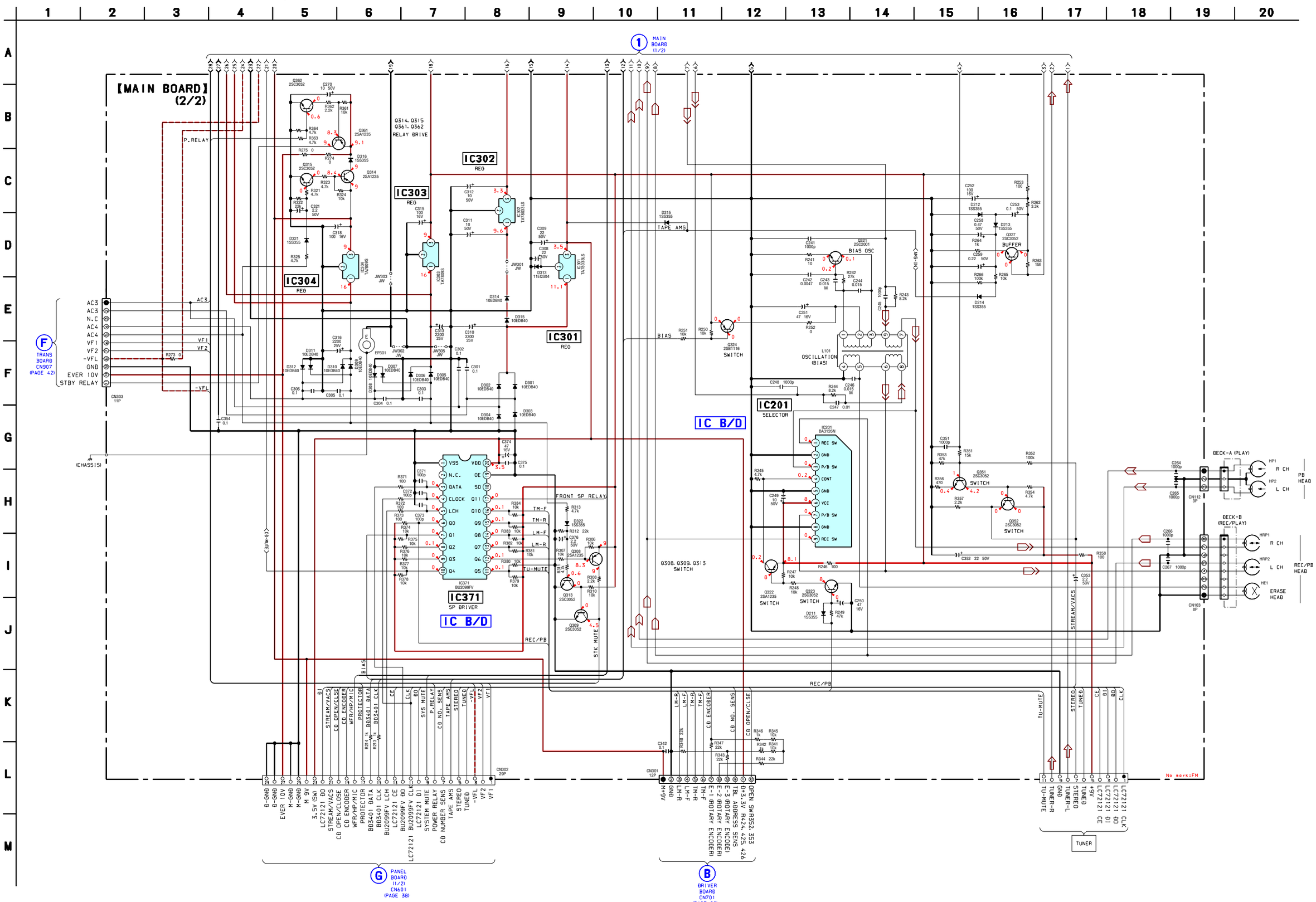
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D201	I-10	IC301	G-8
D202	H-10	IC302	E-9
D203	H-11	IC303	G-7
D204	H-11	IC304	G-7
D205	I-11	IC371	B-4
D206	I-10		
D207	I-10	Q101	H-9
D211	F-4	Q102	H-9
D212	G-5	Q103	H-9
D213	G-5	Q104	H-10
D214	G-5	Q105	E-10
D215	G-4	Q106	D-7
D301	I-8	Q107	D-7
D302	I-8	Q108	F-11
D303	I-8	Q303	E-11
D304	I-8	Q304	E-4
D305	I-7	Q305	E-4
D306	I-7	Q306	B-4
D307	I-7	Q307	B-4
D308	I-7	Q308	B-4
D309	I-7	Q309	B-3
D310	I-6	Q310	H-10
D311	I-6	Q311	H-11
D312	I-6	Q312	H-10
D313	F-8	Q313	B-3
D314	F-9	Q314	G-6
D315	H-8	Q315	G-6
D316	G-6	Q321	F-7
D321	H-5	Q322	F-4
D322	H-5	Q323	F-4
D324	E-4	Q324	F-4
D325	E-4	Q327	G-5
D326	F-4	Q351	G-4
		Q352	G-4
IC101	D-6	Q361	G-6
IC102	D-8	Q362	G-6
IC104	D-11	Q371	I-5
IC201	E-5		

5-7. SCHEMATIC DIAGRAM – MAIN SECTION (1/2) –



5-8. SCHEMATIC DIAGRAM – MAIN SECTION (2/2) –

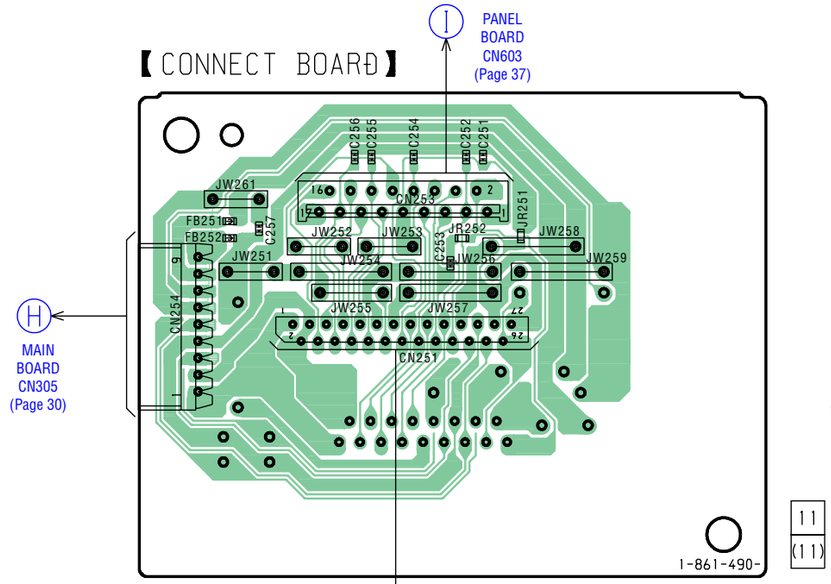


5-9. PRINTED WIRING BOARD – PANEL COMB SECTION –

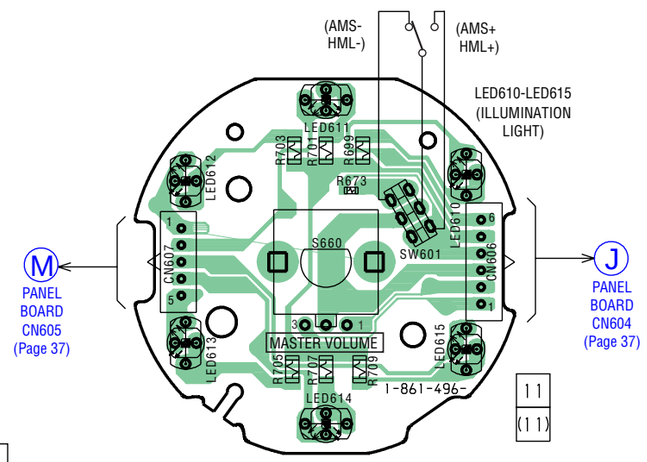
• See page 21 for Circuit Boards Location.

• : Uses unleaded solder.

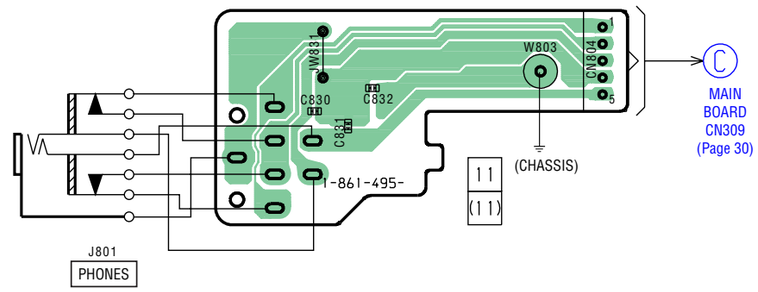
【CONNECT BOARD】



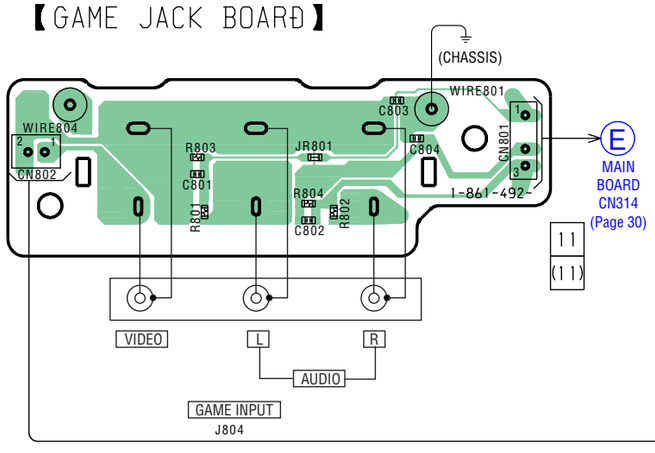
【6 STREAM LED BOARD】



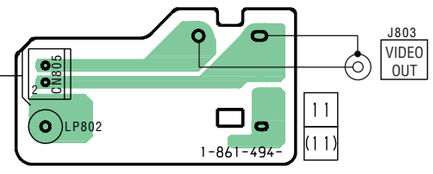
【H/P JACK BOARD】



【GAME JACK BOARD】



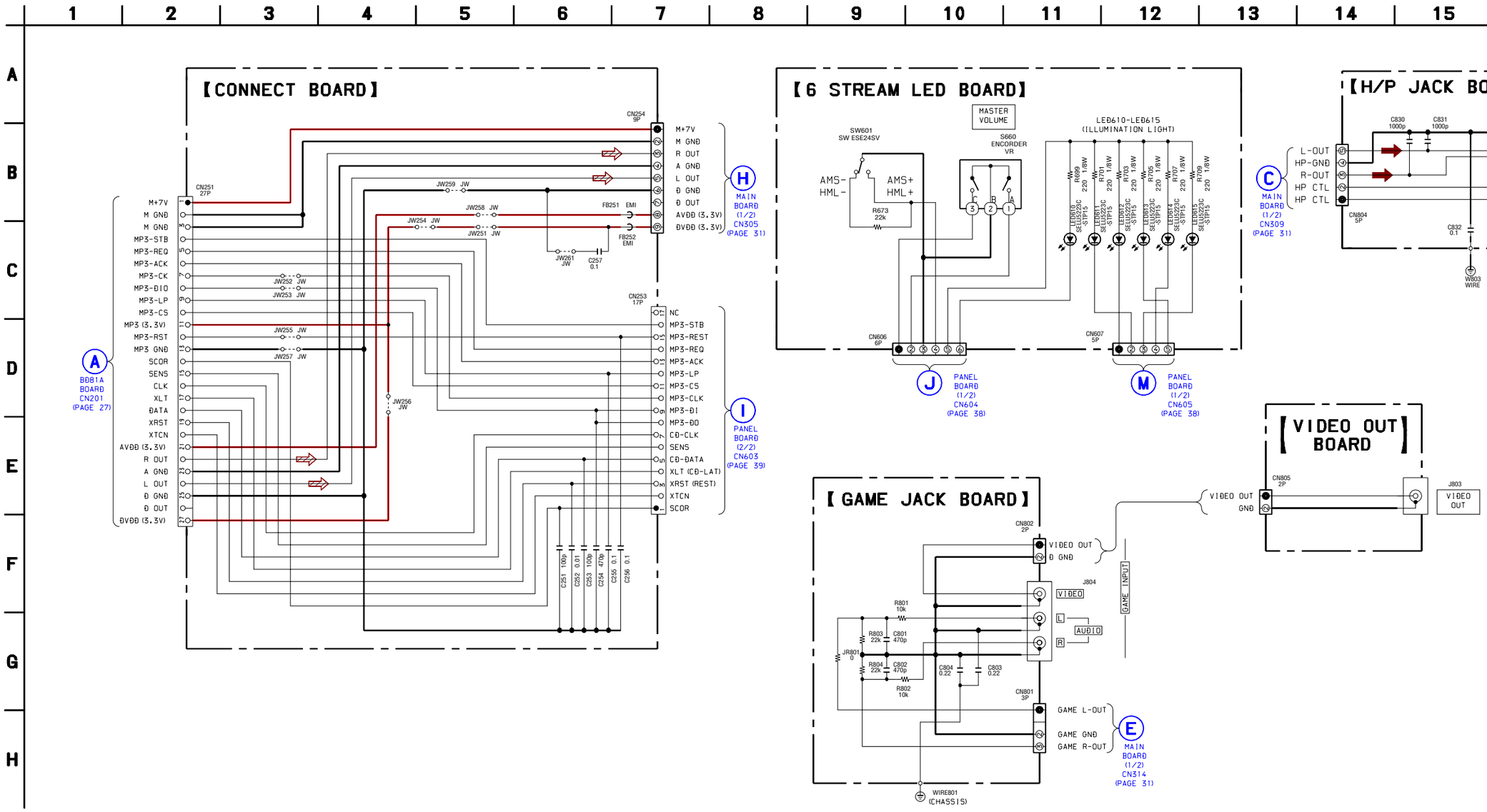
【VIDEO OUT BOARD】



• **Semiconductor Location**

Ref. No.	Location
LED610	B-7
LED611	B-6
LED612	B-6
LED613	C-6
LED614	C-6
LED615	C-7

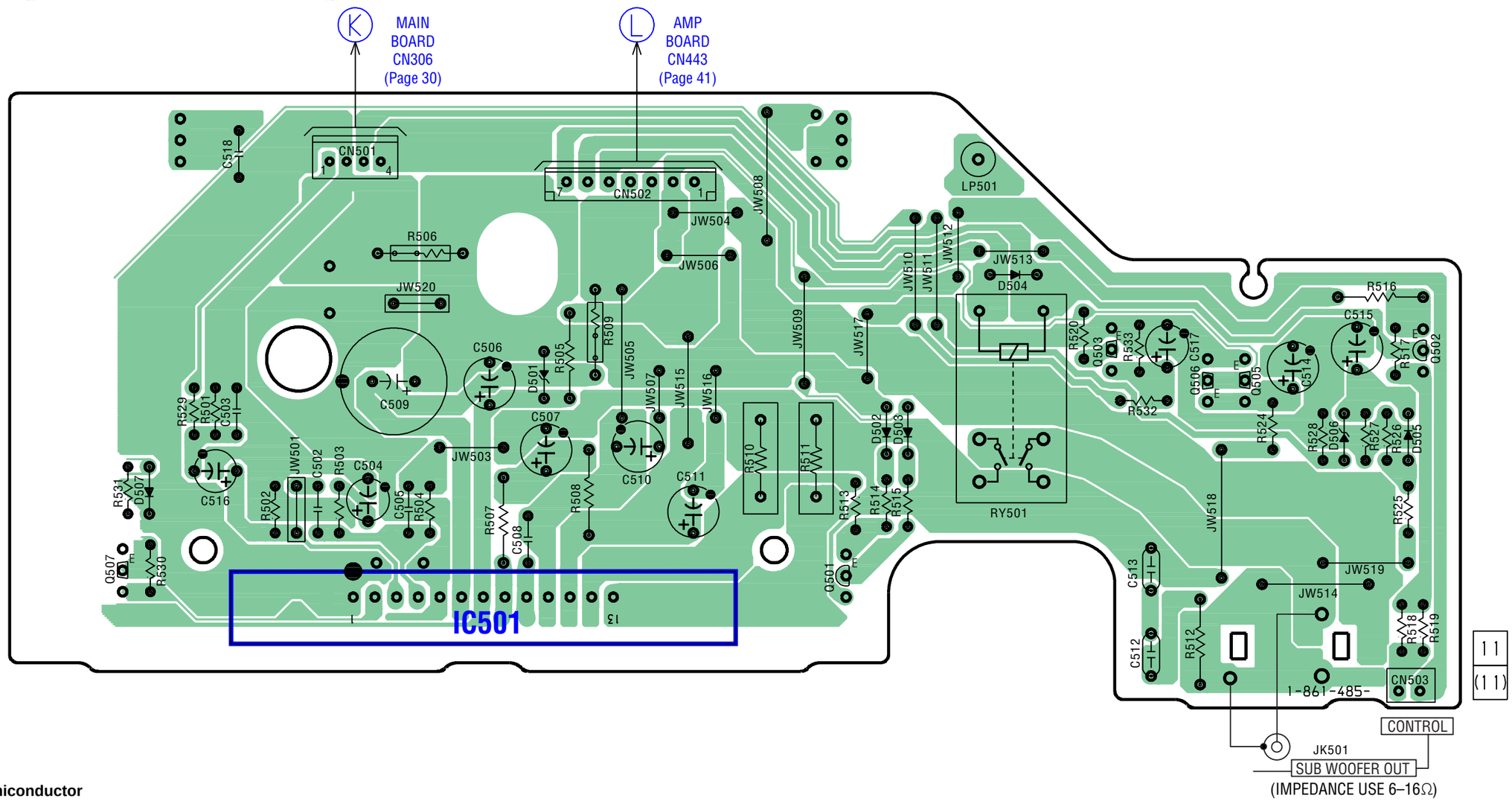
5-10. SCHEMATIC DIAGRAM – PANEL COMB SECTION –



5-11. PRINTED WIRING BOARD – SUB-WOOFER SECTION –

• See page 21 for Circuit Boards Location. • : Uses unleaded solder.

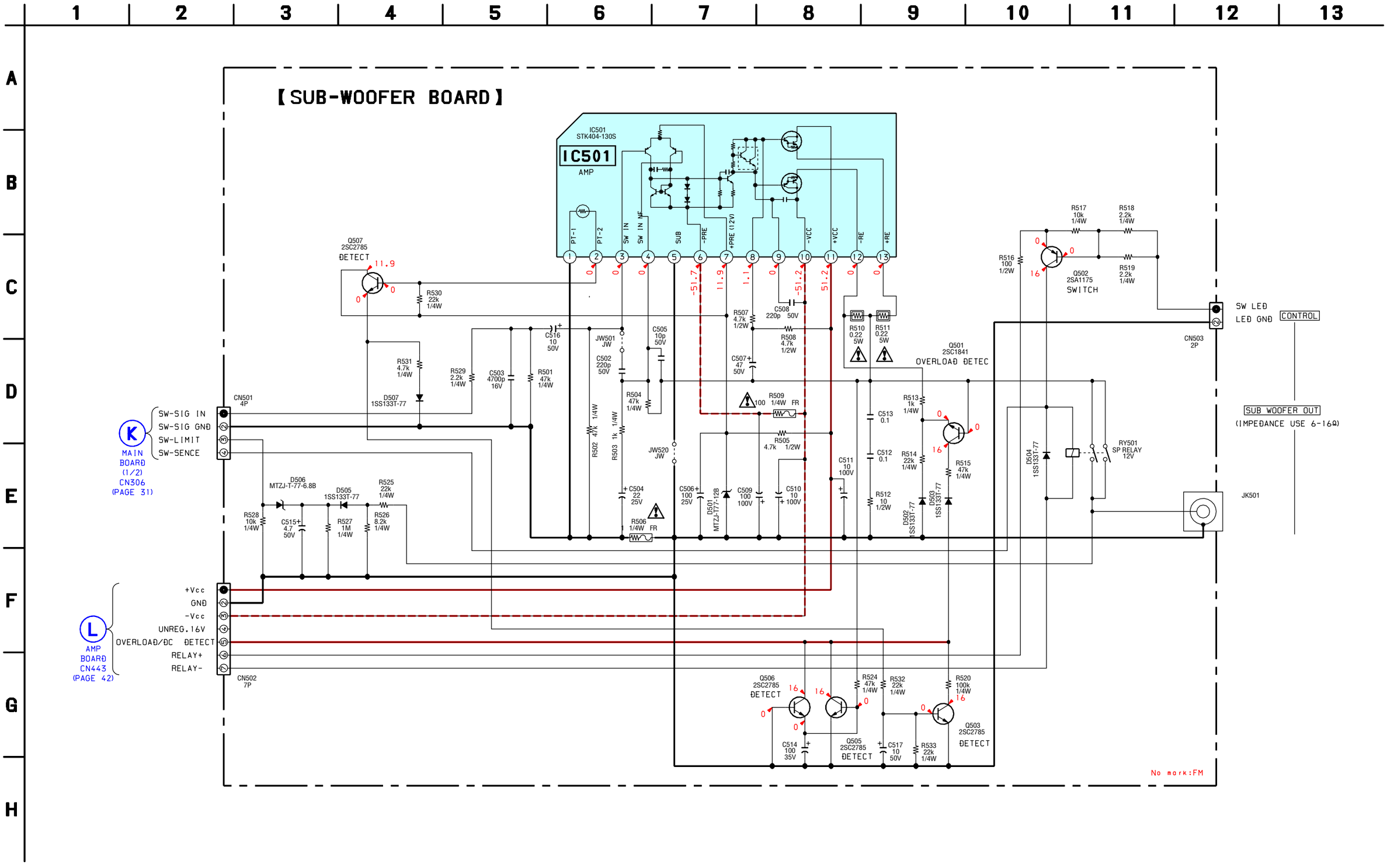
【SUB-WOOFER BOARD】



• **Semiconductor Location**

Ref. No.	Location
D501	C-3
D502	C-5
D503	C-5
D504	B-6
D505	C-8
D506	C-7
D507	C-2
IC501	D-3
Q501	D-5
Q502	C-8
Q503	C-6
Q505	C-7
Q506	C-7
Q507	D-1

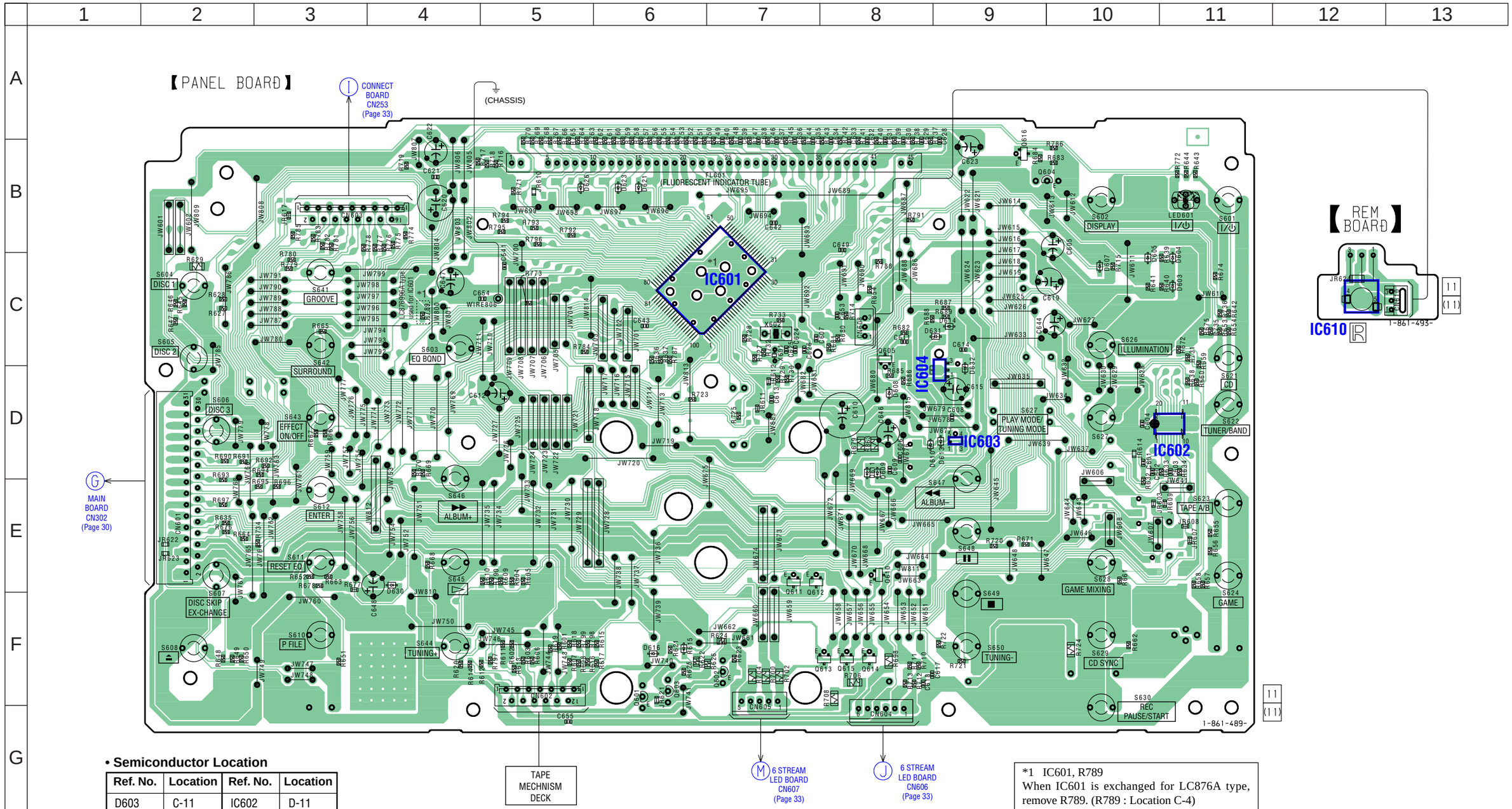
5-12. SCHEMATIC DIAGRAM – SUB-WOOFER SECTION –



5-13. PRINTED WIRING BOARD – PANEL SECTION –

• See page 21 for Circuit Boards Location.

• : Uses unleaded solder.



• **Semiconductor Location**

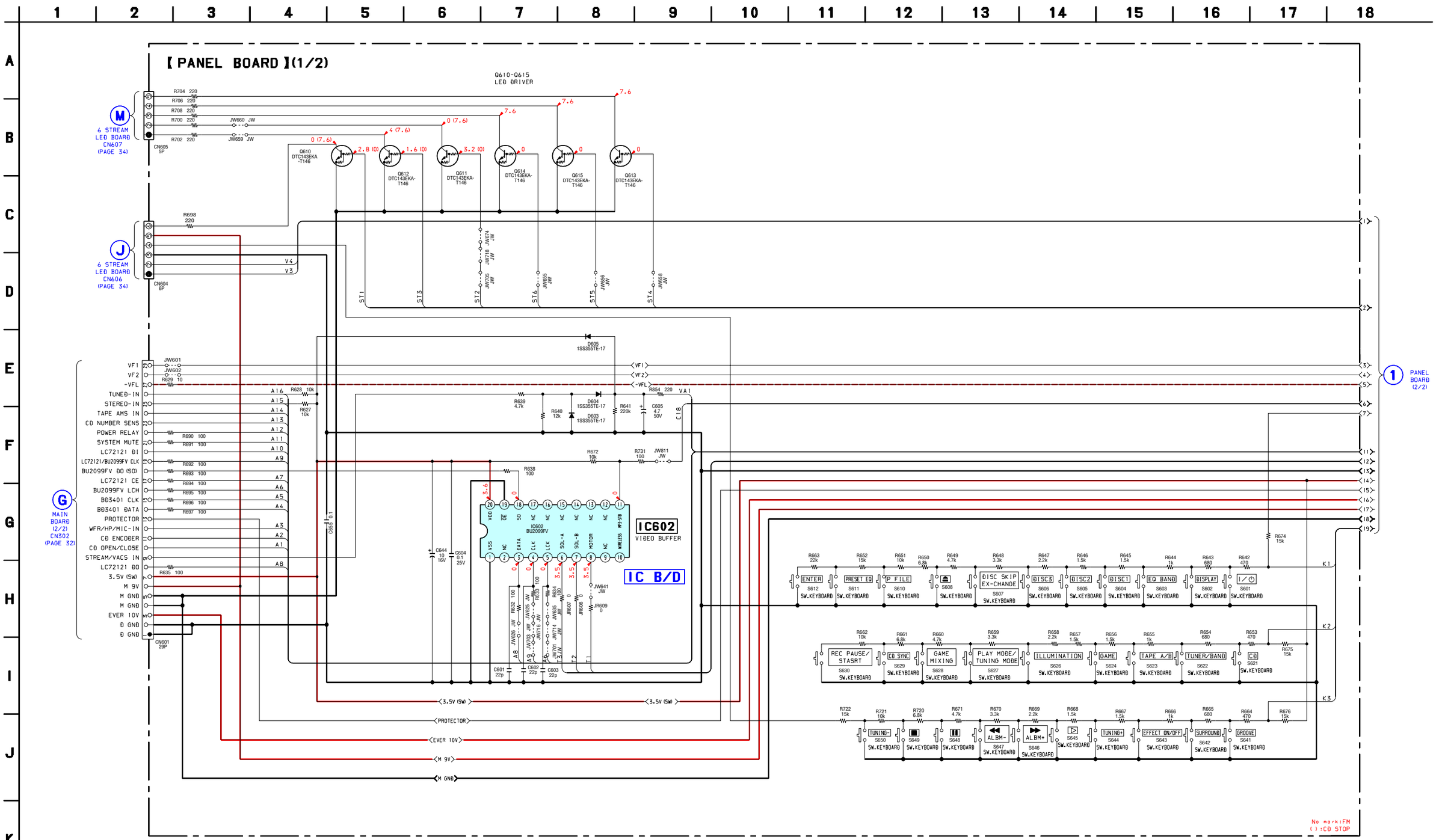
Ref. No.	Location	Ref. No.	Location
D603	C-11	IC602	D-11
D604	C-11	IC603	D-9
D605	C-10	IC604	C-8
D607	C-10	IC610	C-12
D608	D-8		
D609	D-8	LED601	B-11
D610	D-8		
D611	D-8	Q601	F-6
D613	D-9	Q602	F-7
D614	C-9	Q603	F-6
D615	F-6	Q604	B-9
D616	F-6	Q605	C-8
D621	B-6	Q610	E-8
D623	B-6	Q611	E-7
D626	B-5	Q612	E-7
D630	E-4	Q613	F-7
D631	C-8	Q614	F-8
D632	C-9	Q615	F-8
		Q616	A-9
IC601	C-7		

Attention when exchanging IC601

	Original Part	Repair Part
①	6-804-130-01 LC876996A-52S4-E	6-804-130-01 LC876996A-52S4-E This IC is not compatible with ② and ③.
②	6-804-440-01 LC876996A-53H2-E	6-804-440-01 LC876996A-53H2-E or 6-805-469-01 LC876A96A-55D8-E When the above IC is exchanged, remove R789.
③	6-805-469-01 LC876A96A-55D8-E	6-805-469-01 LC876A96A-55D8-E

*1 IC601, R789
When IC601 is exchanged for LC876A type, remove R789. (R789 : Location C-4)

5-14. SCHEMATIC DIAGRAM – PANEL SECTION (1/2) –



5-15. SCHEMATIC DIAGRAM – PANEL SECTION (2/2) –

• See page 49 for IC PIN FUNCTION DESCRIPTION.

【PANEL BOARD】(2/2)

FL-DISPLAY

FL601
FL
(FLUORESCENT INDICATOR TUBE)

IC601
SYSTEM CONTROLLER

*1 IC601
LC876996A-52S4-E
LC876996A-53H2-E
LC876A96A-55D8-E

*1 R789
47K: LC876996A type used for IC601
no mount: LC876A96A type used for IC601

CONNECT BOARD CN253 (PAGE 34)

PANEL BOARD (1/2)

MOTOR

Q601 2SB1068TP-K CAP M DRIVE

Q602 2SB1116-TP-LK B TRIG DRIVE

Q603 2SB1116-TP-LK A TRIG DRIVE

TAPE MECHANISM DECK

【REM BOARD】

IC610
REMOTE CONTROL RECEIVER

IC603
REG

IC604
RESET

Q604 2SA1175TP-HFE
Q604, Q616 SWITCH

Q605 2SC3052F RESET SWITCH

Q616 DTC143EKA-T146

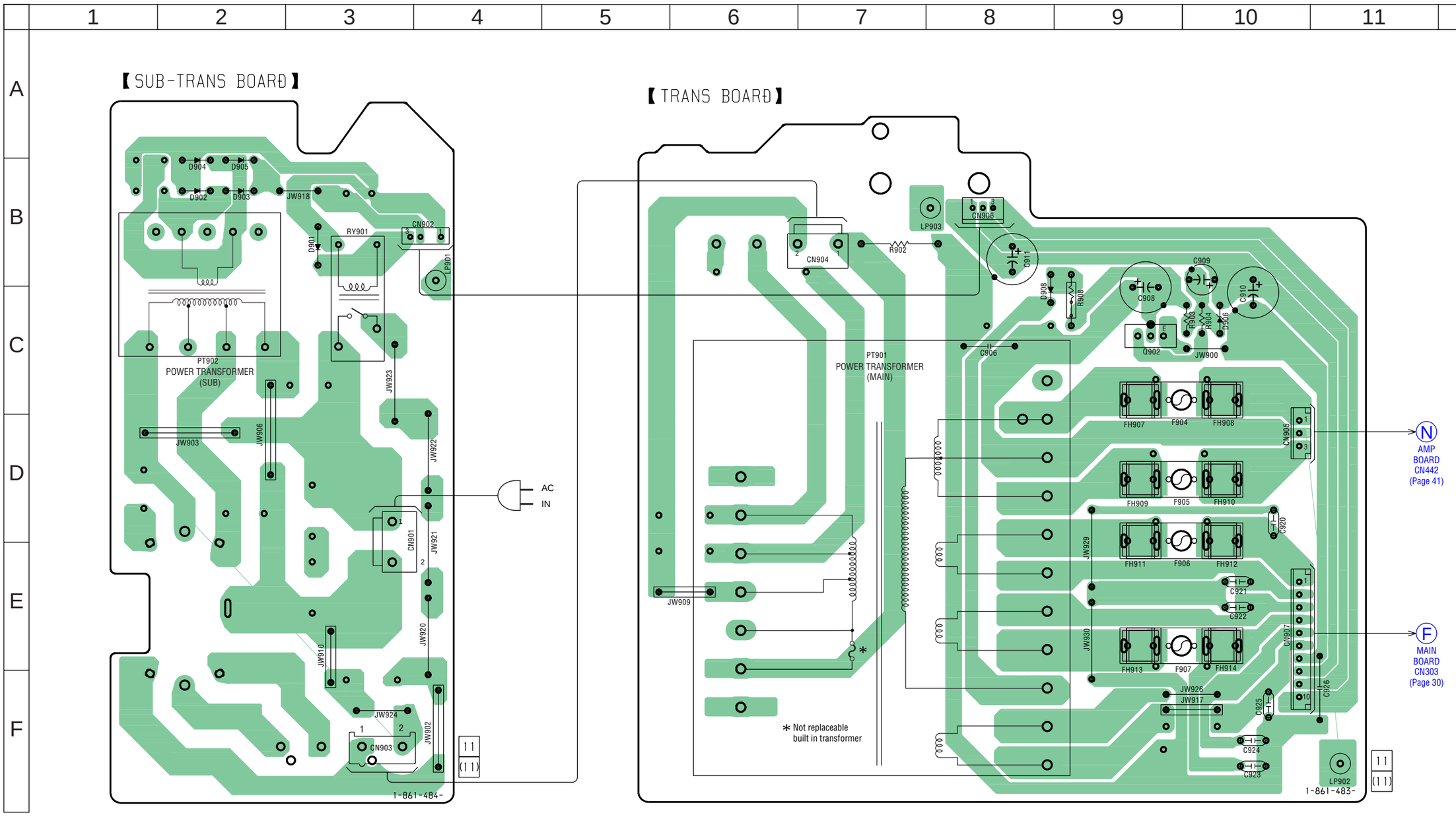
No mark:FM
( ):CD STOP

*1 IC601, R789
When IC601 is exchanged for LC876A type, remove R789.
Refer to Attention when exchanging IC601 (Page 37).

5-16. PRINTED WIRING BOARD – TRANS SECTION –

• See page 21 for Circuit Boards Location.

• : Uses unleaded solder.



• **Semiconductor Location**

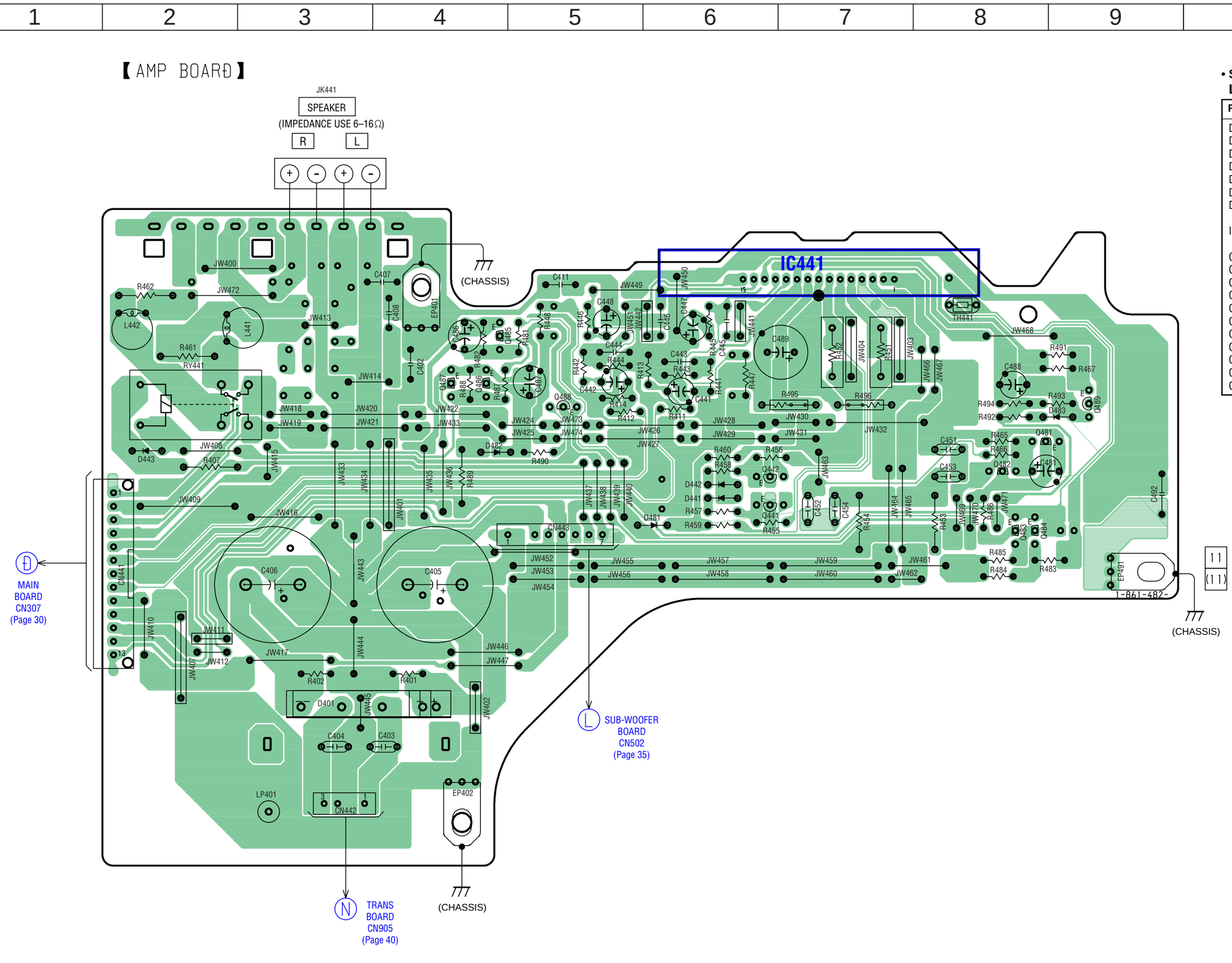
Ref. No.	Location
D901	B-3
D902	B-2
D903	B-2
D904	B-2
D905	B-2
D906	C-10
D908	C-8
Q902	C-9

5-17. PRINTED WIRING BOARD – AMP SECTION –

• See page 21 for Circuit Boards Location.

• : Uses unleaded solder.

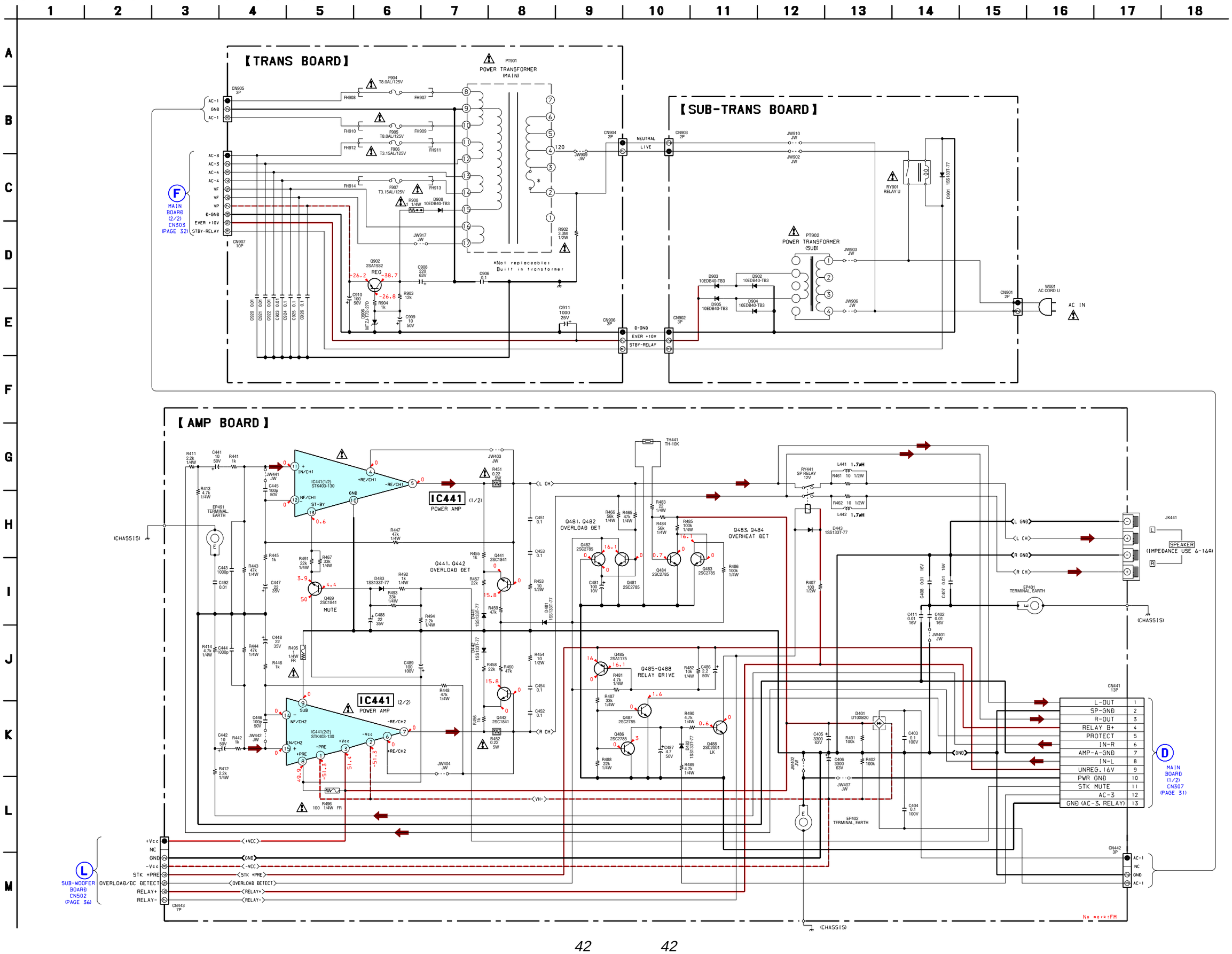
【AMP BOARD】



• Semiconductor Location

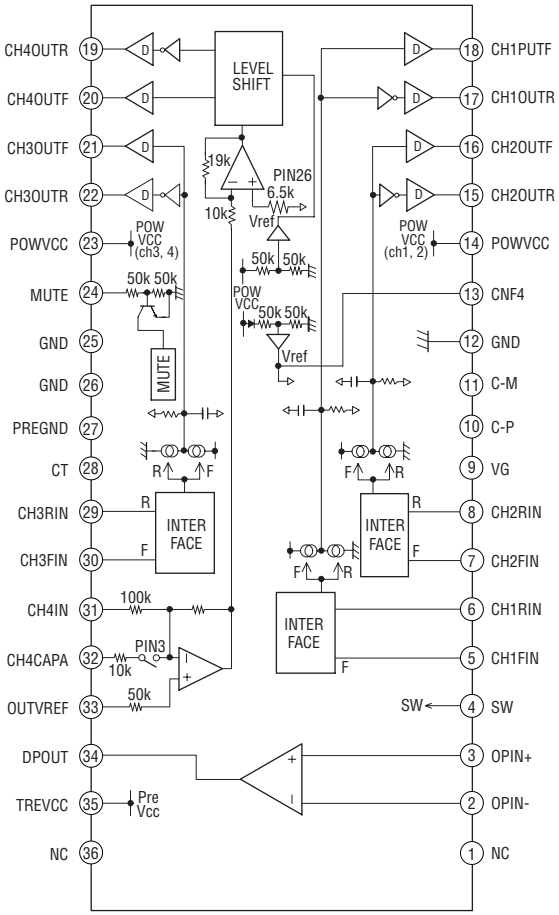
Ref. No.	Location
D401	F-3
D441	D-6
D442	D-6
D443	D-2
D481	D-6
D482	D-4
D483	C-9
IC441	B-7
Q441	D-6
Q442	D-6
Q481	D-9
Q482	D-8
Q483	D-8
Q484	D-8
Q485	C-4
Q486	C-4
Q487	C-4
Q488	C-5
Q489	C-9

5-18. SCHEMATIC DIAGRAM – AMP POWER SECTION –

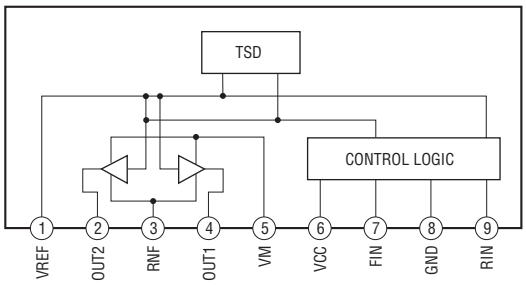


• IC BLOCK DIAGRAMS

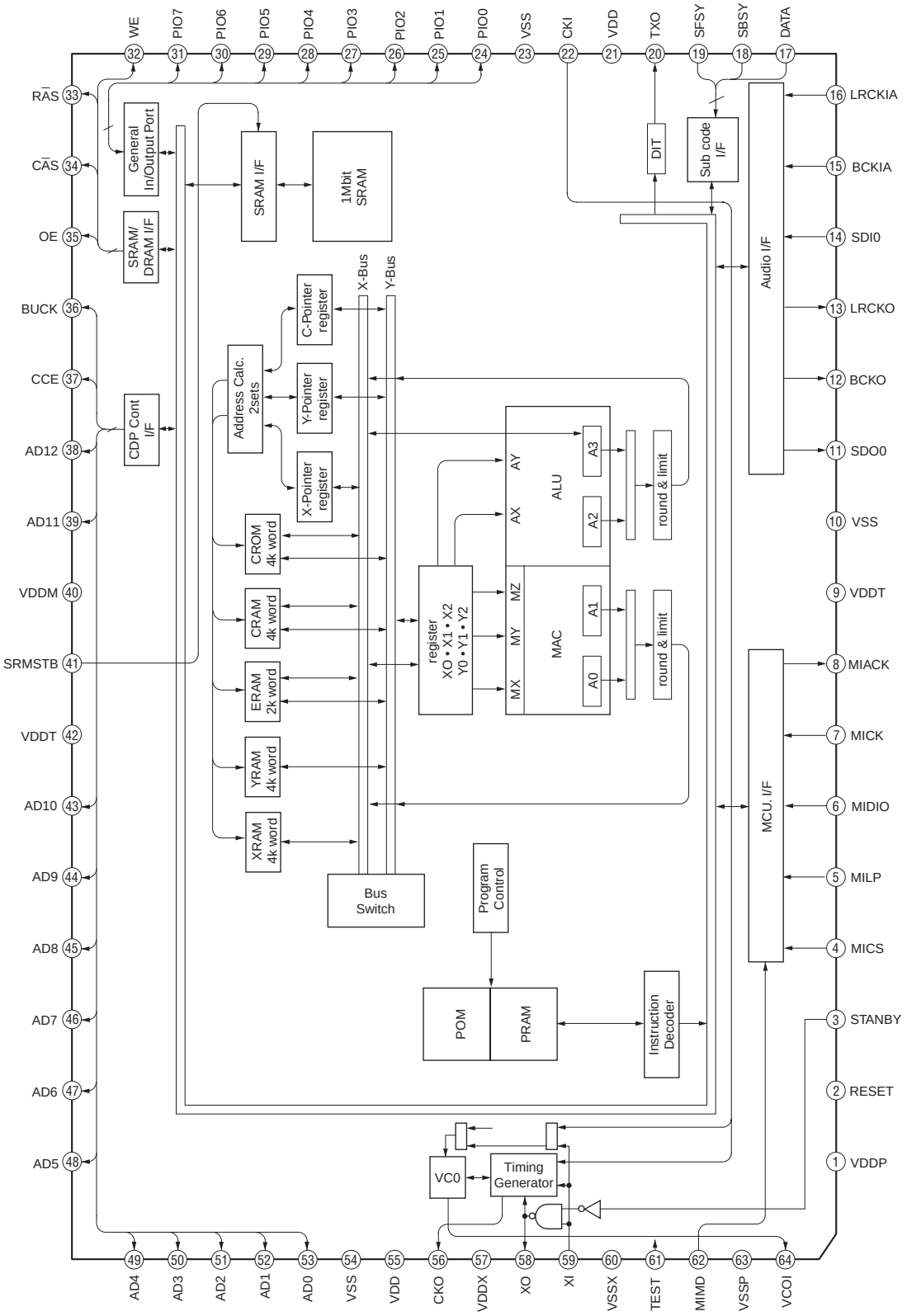
IC251 BA5947FM (BD81A BOARD)



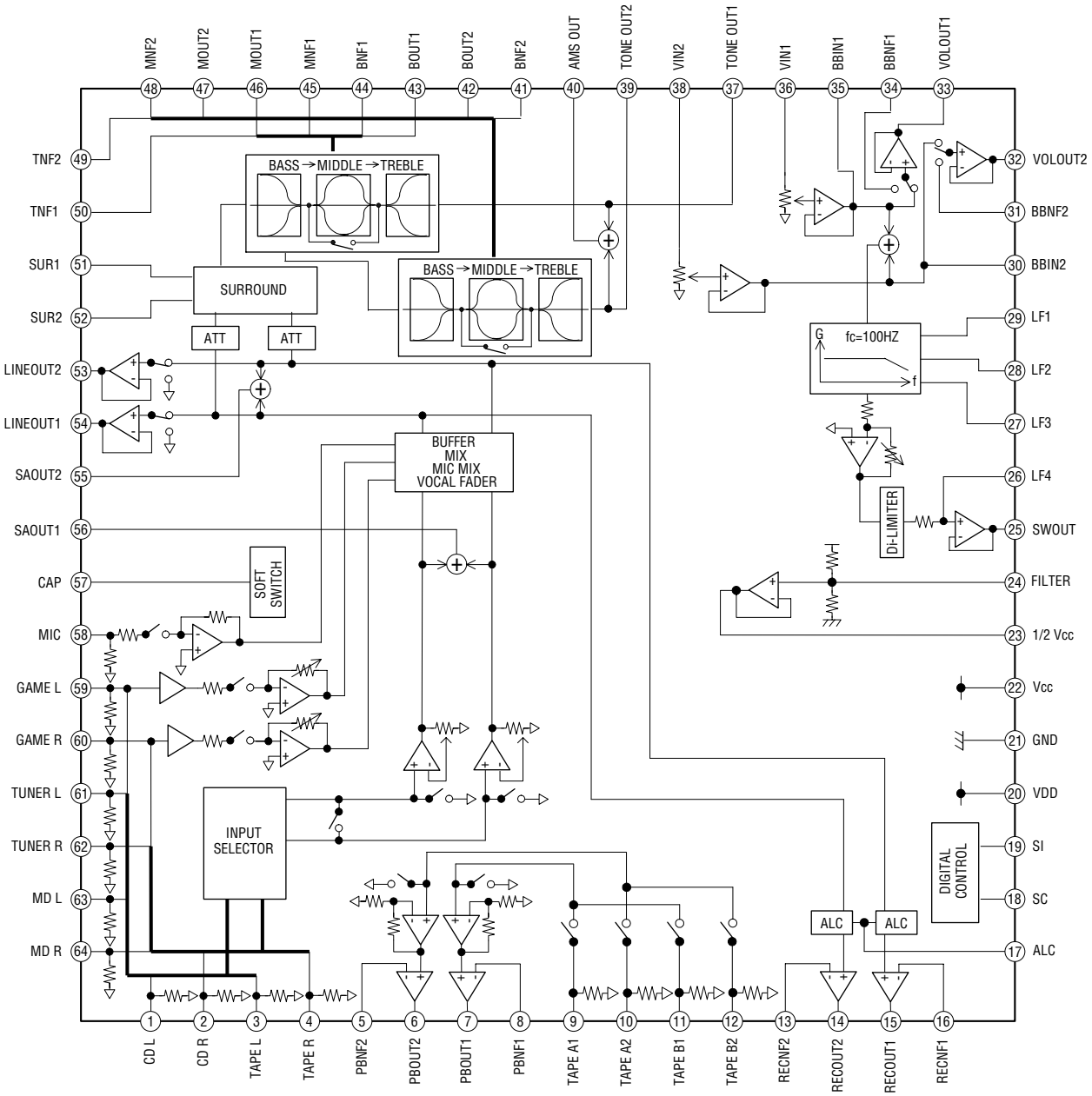
IC701, 712 BA6956AN (DRIVER BOARD)



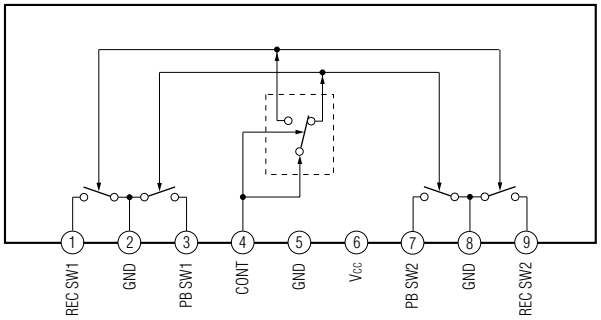
IC301 TC94A34FG-002 (BD81A BOARD)



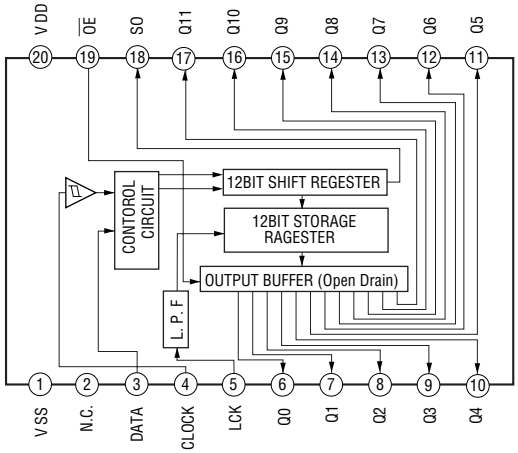
IC101 BD3401KS2 (MAIN BOARD)



IC201 BA3126N (MAIN BOARD)



IC371 BU2099FV (MAIN BOARD)
IC602 BU2099FV (PANEL BOARD)



5-19. IC PIN FUNCTION DESCRIPTION

• IC101 CXD3059AR (RF AMP) (BD81A BOARD)

Pin No	Pin Name	I/O	Description
1	MIRR	I/O	Mirror signal input/output (Not used)
2	DFCT	I/O	Defect signal input/output (Not used)
3	FOK	I/O	Focus OK signal input/output (Not used)
4	VSS	—	Internal digital ground
5	LOCK	I/O	GFS is sampled at 460Hz; when GFS is high , this pin outputs a high signal If GFS is low eight consecutive
6	MDP	O	Spindle motor servo control output
7	SSTP	I	Disk innermost detection signal input
8	IOVSS1	—	I/O digital ground
9	SFDR	O	Sled drive output
10	SRDR	O	Sled drive output
11	TFDR	O	Tracking drive output
12	TRDR	O	Tracking drive output
13	FFDR	O	Focus drive output
14	FRDR	O	Focus drive output
15	IOVDD1	—	I/O digital power supply
16	AVDD0	—	Analog power supply
17	AVSS0	—	Analog ground
18	NC	—	Not used
19	E	I	E signal input
20	F	I	F signal input
21	TEI	I	Tracking error signal input to DSSP block
22	TEO	O	Tracking error signal output from RF amplifier block
23	FEI	I	Focus error signal input to DSSP block
24	FEO	O	Focus error signal output from RF amplifier block
25	VC	I/O	Center voltage output from RF amplifier block
26	A	I	A signal input
27	B	I	B signal input
28	C	I	C signal input
29	D	I	D signal input
30	NC	—	Not used
31	AVDD4	—	Analog power supply
32	RFDCO	O	RFDC signal output (Not used)
33	PDSENS	I	Reference voltage pin for PD
34	AC_SUM	O	RFAC summing amplifier output
35	EQ_IN	I	Equalizer circuit input
36	LD	O	APC amplifier output
37	PD	I	APC amplifier input
38	NC	—	Not used
39	RFC	I	Equalizer cut-off frequency adjustment pin
40	AVSS4	—	Analog ground
41	RFACO	O	RFAC signal output
42	RFACI	I	RFAC signal input or EFM signal input
43	AVDD3	—	Analog power supply
44	BIAS	I	Asymmetry circuit constant current input
45	ASYI	I	Asymmetry comparator voltage input
46	ASYO	O	EFM full-swing output (Low = VSS, High = VDD)
47	VPCO	O	Wide-band EFM PLL charge pump output
48	VCTL	I	Wide-band EFM PLL VCO2 control voltage input
49	AVSS3	—	Analog ground

Pin No.	Pin Name	I/O	Description
50	CLTV	I	Multiplier VCO1 control voltage input
51	FILO	O	Master PLL (slave = digital PLL) filter output
52	FILI	I	Master PLL filter input
53	PCO	O	Master PLL charge pump output
54	AVDD5	—	Analog power supply
55	DDVROUT	O	DC/DC converter output
56	DDVRSEN	I	DC/DC converter output voltage monitor pin
57	AVSS5	—	Analog ground
58	DDCR	I	DC/DC converter reset pin
59	NC	—	Not used
60	BCKI	I	D/A interface bit clock input
61	PCMDI	I	D/A interface serial data input (2's COMP, MSB first)
62	LRCKl	I	D/A interface LR clock input
63	LRCK	O	D/A interface LR clock output f = Fs
64	VSS	—	Internal digital ground
65	PCMD	O	D/A interface serial data output (2's COMP, MSB first)
66	BCK	O	D/A interface bit clock output
67	VDD	—	Internal digital power supply
68	EMPH	O	High when the playback disc has emphasis, low it has not
69	EMPHI	I	High when de-emphasis is ON, low when input OFF
70	IOVDD2	—	I/O digital power supply
71	DOUT	O	Digital Out output
72	TEST	I	Test pin Normally ground
73	TES1	I	Test pin Normally ground
74	IOVss2	—	I/O digital ground
75	NC	—	Not used
76	XVSS	—	Master clock ground
77	XTAO	O	Crystal oscillation circuit output
78	XTAI	I	Crystal oscillation circuit input
79	XVDD	—	Master clock power supply
80	AVDD1	—	Analog power supply
81	AOUT1	O	Lch analog output
82	VREFL	O	Lch reference voltage
83	AVSS1	—	Analog ground
84	AVSS2	—	Analog ground
85	VREFR	O	Rch reference voltage
86	AOUT2	O	Rch analog output
87	AVDD2	—	Analog power supply
88	NC	—	Not used
89	IOVDD0	—	I/O digital power supply
90	RMUT	O	Rch "0" detection flag (Not used)
91	LMUT	O	Lch "0" detection flag (Not used)
92	NC	—	Not used
93	XTSL	I	Crystal selection input (Not used)
94	IOVSS0	—	I/O digital ground
95	XTACN	I	Oscillation circuit control Self-oscillation when high, oscillation stop when low
96	SQSO	O	Subcode Q 80-bit and PCM peak and level data output CD TEXT data output
97	SQCK	I	SQSO readout clock input

Pin No.	Pin Name	I/O	Description
98	SBSO	O	Subcode P to W serial output
99	EXCK	I	SBSO readout clock input
100	XRST	I	System reset Reset when low
101	SYSM	I	Mute input Muted when high
102	D ATA	I	Serial data input from CPU
103	VSS	—	Internal digital ground
104	XLAT	I	Latch input from CPU The serial data is latched at the falling edge
105	CLOCK	I	Serial data transfer clock input from CPU
106	VDD	—	Internal digital power supply
107	SENS	O	SENS output to CPU
108	SCLK	I	SENS serial data readout clock input
109	ATSK	I/O	Anti-shock input/output
110	WFCK	O	WFCK output (Not used)
111	XUGF	O	XUGF output (Not used)
112	XPCK	O	XPCK output (Not used)
113	GFS	O	GFS output (Not used)
114	C2PO	O	C2PO output (Not used)
115	SCOR	O	High output when the subcode sync, S0 or S1, is detected
116	VDD	—	Internal digital power supply
117	C4M	O	4 2336MHz output (Not used)
118	WDCK	O	Word clock output f = 2Fs (Not used)
119	COUT	I/O	Track number count signal input/output (Not used)
120	NC	—	Not used

• IC601 LC876996A-52S4-E (SYSTEM CONTROLLER) (PANEL BOARD)

Pin No	Pin Name	I/O	Description
1	O-MP3 CS	O	CS output to CD Digital Processor
2	O-MP3 LP MOTER	O	LP output to CD Digital Processor and Motor signal output
3	I-MP3 ACK SOL-B	I	ACK input from CD Digital Processor and Motor signal input
4	O-MP3 REQ SOL-A	O	REQ output to CD Digital Processor and Motor signal output
5	I-SCOR	I	CD Scor input
6	$\overline{\text{O-MP3 RESET}}$	O	RESET output to CD Digital Processor
7	I-BU1924 DATA	I	Data input(Not used)
8	I-BU1924 CLK	I	Clock input(Not used)
9	I-VOLUME-IN1	I	Volume signal input from the encoder
10	I-VOLUME-IN2	I	Volume signal input from the encoder
11	$\overline{\text{RESET}}$	I	Reset input
12	I-XT1	I	Connection for input a crystal resonator
13	I-XT2	O	Connection for input a crystal resonator
14	VSS1	—	Ground
15	CF1	I	Connection for input a ceramic resonator
16	CF2	O	Connection for input a ceramic resonator
17	VDD1	—	Power supply
18	$\overline{\text{I-PROTECT}}$	I	Power amplifier circuit protection signal input
19	WFR/HP/MIC-IN	I	SubWoofer or Headphone detection signal input
20	I-CD ENCODER	I	Signal input from the CD encoder
21	I-CD OPEN/CLOSE	I	CD tray open switch signal input
22	I-TAPE A START	I	TAPE A switches signal input
23	I-TAPE B START	I	TAPE B switches signal input
24	I-STREAM/VACS	I	Stream/Vacs signal input
25	I-KEY 3	I	Function key input
26	I-KEY 2	I	Function key input
27	I-KEY 1	I	Function key input
28	$\overline{\text{I-SIRDS-IN}}$	I	Data input from the remote contorol receiver
29	I-AC CUT	I	Power down signal input
30	G13	O	FL tube grid signal output
31	G12	O	FL tube grid signal output
32	G11	O	FL tube grid signal output
33	G10	O	FL tube grid signal output
34	G9	O	FL tube grid signal output
35	G8	O	FL tube grid signal output
36	G7	O	FL tube grid signal output
37	G6	O	FL tube grid signal output
38	G5	O	FL tube grid signal output
39	G4	O	FL tube grid signal output
40	G3	O	FL tube grid signal output
41	G2	O	FL tube grid signal output
42	G1	O	FL tube grid signal output
43	S1	O	FL tube segment signal output
44	S2	O	FL tube segment signal output
45	S3	O	FL tube segment signal output
46	VDD3	—	Power supply
47	S4	O	FL tube segment signal output
48	S5	O	FL tube segment signal output
49	S6	O	FL tube segment signal output
50	S7/METER-SW1	O	FL tube segment signal output

Pin No	Pin Name	I/O	Description
51	-VPP	—	Power supply (-)
52	S8/METER-SW2	O	FL tube segment signal output
53	S9/METER-SW3	O	FL tube segment signal output
54	S10/SW1	O	FL tube segment signal output
55	S11/SW2	O	FL tube segment signal output
56	S12/SW3	O	FL tube segment signal output
57	S13/SW4	O	FL tube segment signal output
58	S14/SW5	O	FL tube segment signal output
59	S15/SW6	O	FL tube segment signal output
60	S16/SW7	O	FL tube segment signal output
61	S17/SW8	O	FL tube segment signal output
62	S18/SW9	O	FL tube segment signal output
63	S19/SW10	O	FL tube segment signal output
64	S20	O	FL tube segment signal output
65	S21	O	FL tube segment signal output
66	I-SPEC/MODE/METER	I	METER swich input
67	I-TUNED-IN	I	Tuning a frequency signal input
68	I-STEREO-IN	I	Stereo tuning signal input
69	I-ASM-IN	I	ASM signal input
70	I-REEL-A-IN	I	A deck photo sensor signal input
71	I-REEL-B-IN	I	B deck photo sensor signal input
72	VDD4	—	Power supply
73	I-CD Num Senser	O	Table address sensor swich signal input
74	O-POWER-RELAY	O	POWER RELAY control output
75	O-SYSTEM-MUTE	O	System muting signal output
76	O-POWER-LED	O	POWER LED control signal output
77	STREAM-LED6 SOLB	O	Illumination LED control signal output
78	STREAM-LED5 SOLA	O	Illumination LED control signal output
79	STREAM-LED4 MOTOR	O	Illumination LED control signal output
80	STREAM-LED3 MP3-STB	O	Illumination LED control signal output
81	STREAM-LED2	O	Illumination LED control signal output
82	STREAM-LED1	O	Illumination LED control signal output
83	I-LC72121 DI	I	Data input from Tuner
84	O-LC72121 CE	O	Chip select output to Tuner
85	O-LC72121/BU2099FV DO	O	Data input from Tuner and SP Driver
86	O-LC72121/BU2099FV CLK	O	Clock output to Tuner and SP Driver
87	O-BU2099FV LCH	O	LCH output to SP Driver
88	O-BD3401 CLK	O	Clock output to Sound Processor
89	VSS2	—	Ground
90	VDD2	—	Power supply
91	O-BD3401 DATA	O	Data output toSound Processor
92	O-XTCN	O	CD xtcn signal output
93	O-XRES(RESET)	O	CD reset signal output
94	O-XLT(CD-LAT)	O	CD xlt signal output
95	O-CD-DATA	O	CD data output
96	I-SENS	I	CD sens input
97	O-CD-CLK	O	CD clk output
98	O-MP3-DO	O	Clock output to CD Digital Processor
99	I-MP3-DI	I	Data input from CD Digital Processor
100	O-MP3-CLK	O	Clock output to CD Digital Processor

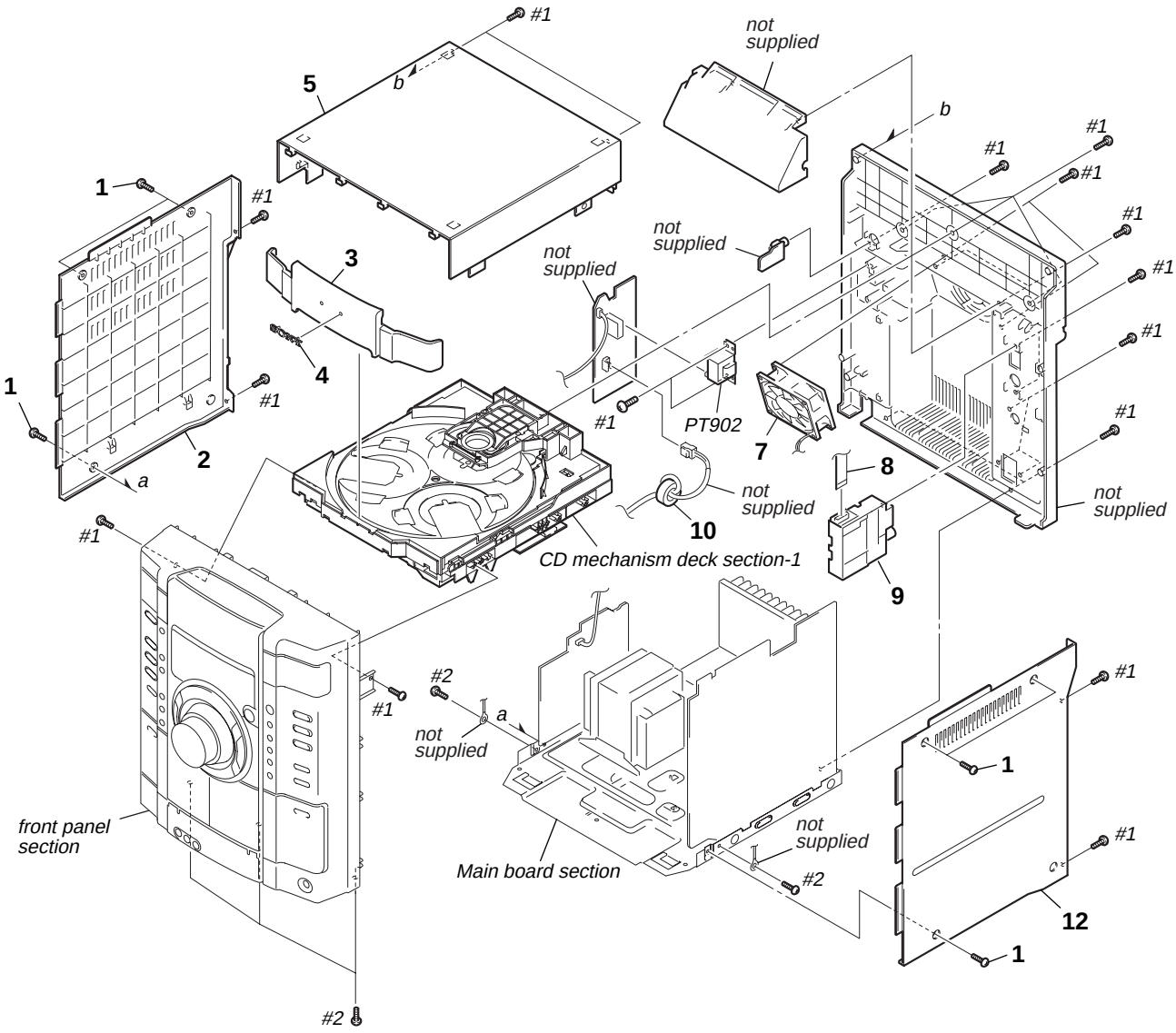
SECTION 6
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  CND : Canadian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

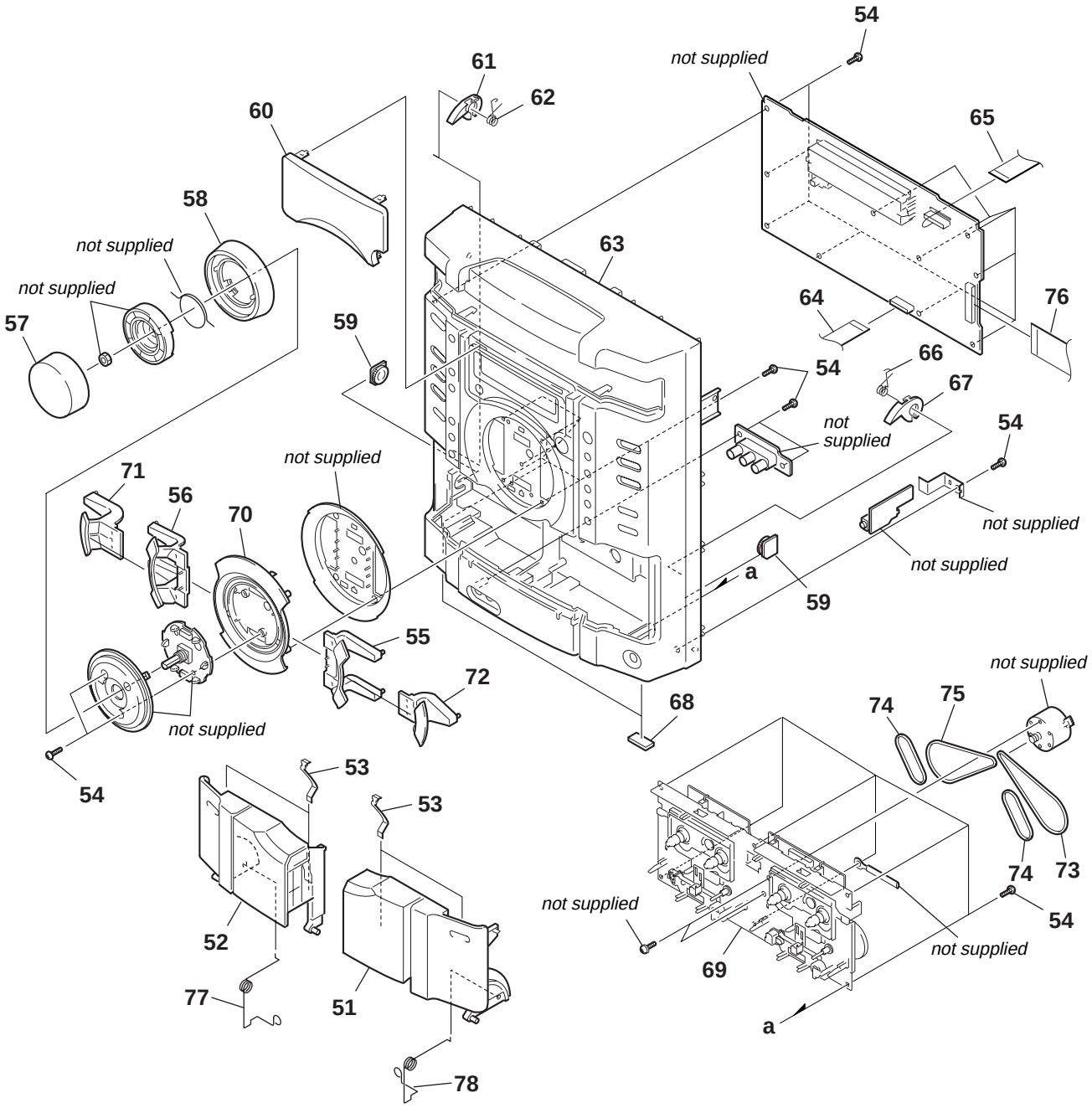
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. MAIN SECTION



Ref. No.	Part No.	Description	Remarks
1	3-363-099-31	SCREW (CASE 3 TP2)	
2	4-245-183-61	COVER (SIDE-L) (US)	
2	4-245-183-71	COVER (SIDE-L) (CND)	
3	4-252-196-21	DOOR, CD	
4	3-038-018-01	EMBLEM, SONY	
5	4-244-849-61	COVER (TOP) (US)	
5	4-244-849-71	COVER (TOP) (CND)	
7	1-763-117-13	FAN, DC	
8	1-769-940-11	WIRE (FLAT TYPE) (11 CORE)	
9	1-693-631-12	TUNER (FM/AM)	
10	1-400-285-11	F-BEAD, E2515 MRT	
12	4-245-184-61	COVER (SIDE-R) (US)	
12	4-245-184-71	COVER (SIDE-R) (CND)	
⚠ PT902	1-443-614-11	TRANS ASSY, SUB	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

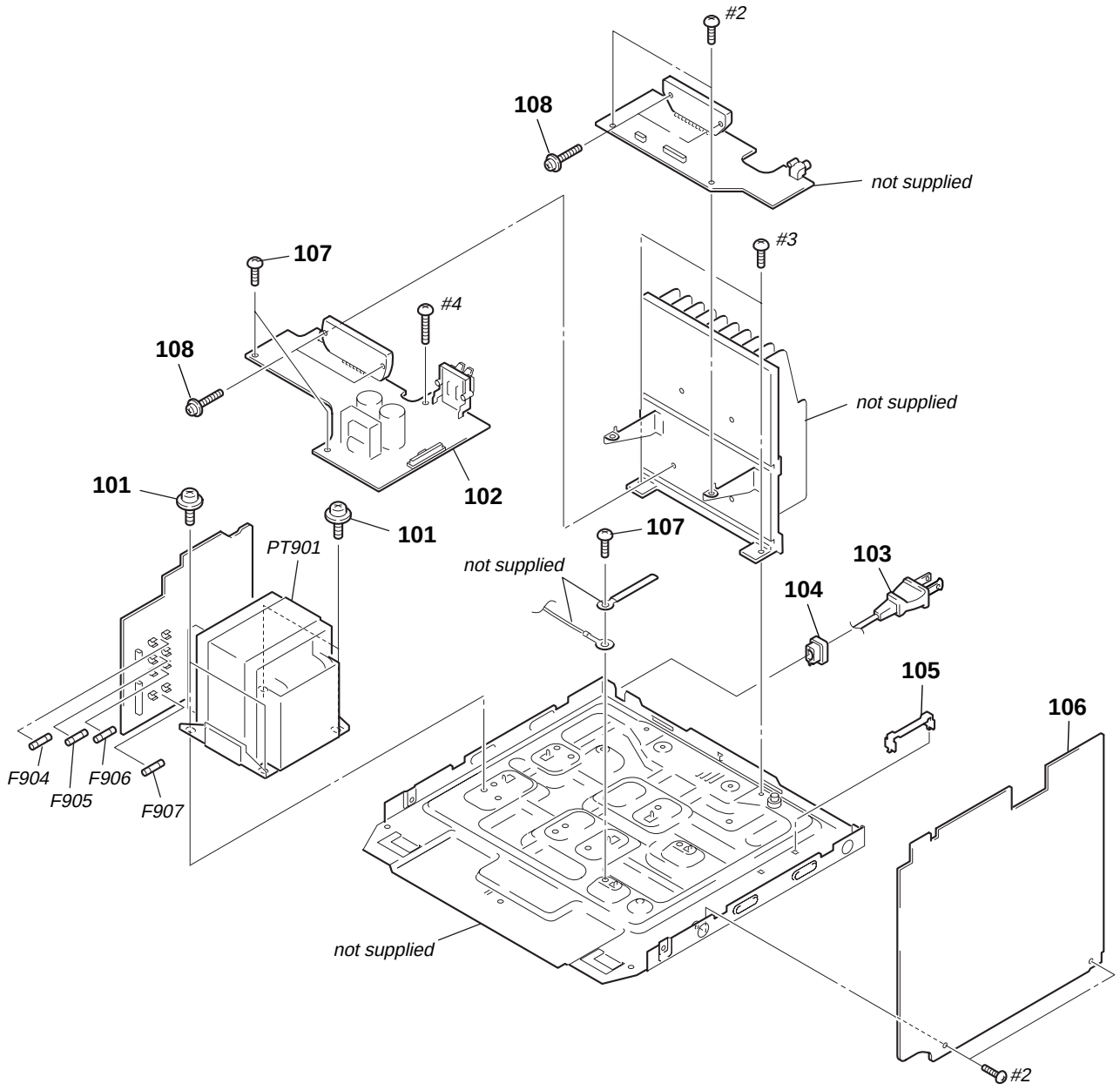
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks
51	4-252-202-01	DOOR (B), CASS	
52	4-252-201-01	DOOR (A), CASS	
53	4-238-631-01	TAPE SPRING	
54	4-951-620-01	SCREW (2.6X8), +BVTP	
55	4-252-207-11	BUTTON, FF/ALBUM+	
56	4-252-208-11	BUTTON, FR/ALBUM-	
57	4-252-214-01	KNOB, VOLUME	
58	X-4956-295-1	RING ASSY, KNOB	
59	4-224-104-41	DAMPER	
60	4-252-198-01	WINDOW, DISPLAY	
61	4-231-824-01	CAM (A), HEART	
62	4-231-836-01	SPRING (HEART CAM-A)	
63	4-252-195-21	PANEL, FRONT (US)	
63	4-252-195-31	PANEL, FRONT (CND)	
64	1-769-975-11	WIRE (FLAT TYPE) (13 CORE)	

Ref. No.	Part No.	Description	Remarks
65	1-773-048-11	WIRE (FLAT TYPE) (17 CORE)	
66	4-231-841-01	SPRING (HEART CAM-B)	
67	4-231-825-01	CAM (B), HEART	
68	4-225-252-01	CUSHION (FOOT)	
69	1-796-485-51	DECK, MECHANICAL (CWM43FF-05)	
70	4-252-200-01	BUTTON COVER	
71	4-252-206-01	BUTTON, STOP	
72	4-252-205-01	BUTTON, PLAY	
73	2-657-155-01	BELT (BR)	
74	4-235-777-01	BELT (FR)	
75	4-243-609-01	BELT (AF)	
76	1-773-282-11	WIRE (FLAT TYPE)(29 CORE)	
77	4-252-221-01	SPRING (A), CASS DOOR	
78	4-252-222-01	SPRING (B), CASS DOOR	

6-3. MAIN BOARD SECTION

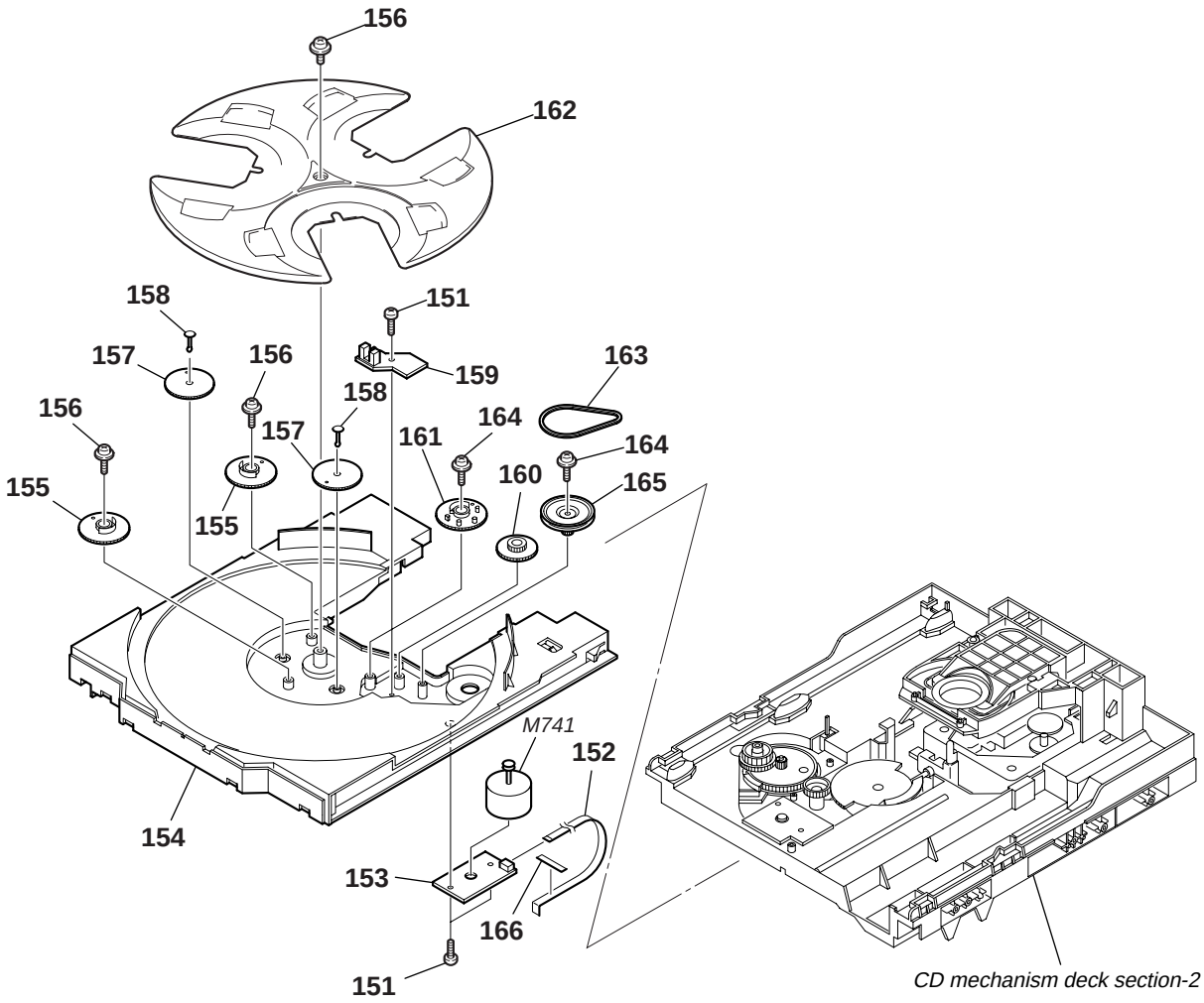


Ref. No.	Part No.	Description	Remarks
101	4-242-527-01	S-SCREW, ITC+4-8 R	
102	A-4750-756-A	AMP BOARD, COMPLETE	
⚠103	1-783-531-11	CORD, POWER	
* 104	3-703-244-00	BUSHING (2104), CORD	
105	4-988-533-01	HOLDER, PWB	
106	A-4750-741-A	MAIN BOARD, COMPLETE	
107	4-242-539-01	BVIT 3B +3-8R W/O SLOT	
108	3-905-609-41	SCREW (TRANSISTOR)	

Ref. No.	Part No.	Description	Remarks
⚠F904	1-576-537-11	FUSE, GLASS TUBE (DIA.5) (T8.0AL/125V)	
⚠F905	1-576-537-11	FUSE, GLASS TUBE (DIA.5) (T8.0AL/125V)	
⚠F906	1-533-451-11	FUSE, GLASS TUBE (DIA. 5) (T3.15AL/125V)	
⚠F907	1-533-451-11	FUSE, GLASS TUBE (DIA. 5) (T3.15AL/125V)	
⚠PT901	1-443-254-11	TRANSFORMER, POWER	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#3	7-685-881-09	SCREW +BVTT 4X8 (S)	
#4	7-685-649-79	SCREW +BVTP 3X14 TYPE2 IT-3	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

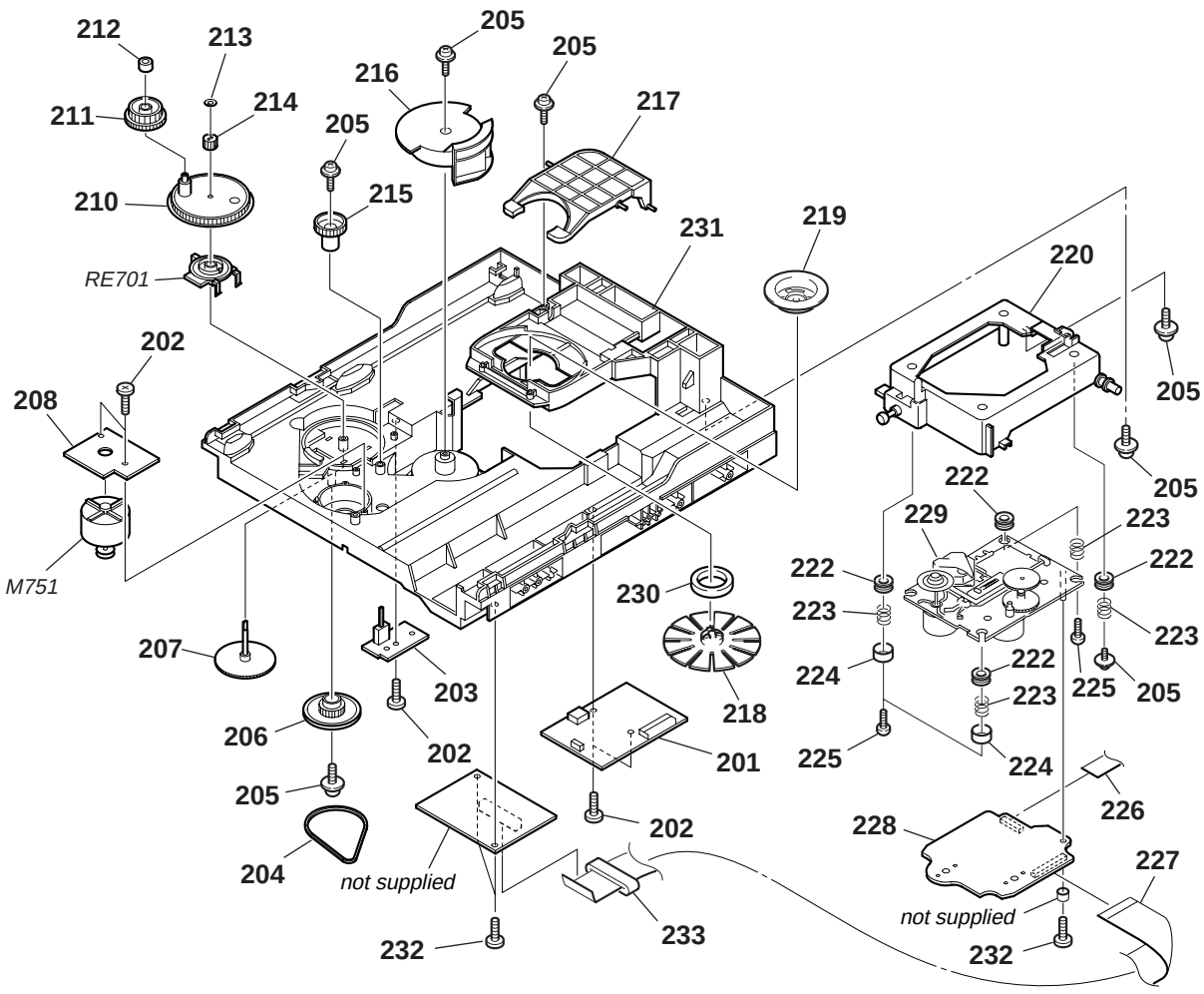
6-4. CD MECHANISM DECK SECTION -1 (CDM74-F1BD81)



Ref. No.	Part No.	Description	Remarks
151	4-218-253-21	SCREW (M2.6), +BTTP	
152	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
153	1-687-134-12	MOTOR (TB) BOARD	
154	4-243-815-01	TABLE (LOADING)	
155	4-245-571-02	GEAR (STOPPER)	
156	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING	
157	4-245-570-01	GEAR (JOINT)	
158	4-245-572-01	BUSHING (GEAR)	
159	1-687-132-12	SENSOR BOARD	

Ref. No.	Part No.	Description	Remarks
160	4-243-820-01	GEAR (TABLE)	
161	4-243-819-01	GEAR (GENEVA)	
162	4-243-816-01	TRAY	
163	4-243-823-01	BELT (TABLE)	
164	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
165	4-243-821-01	PULLEY (TABLE)	
166	3-231-598-01	SHEET (BA)	
M741	A-4723-963-A	MOTOR ASSY, TABLE	

6-5. CD MECHANISM DECK SECTION -2 (CDM74-F1BD81)



Ref. No.	Part No.	Description	Remarks
201	1-687-135-12	DRIVER BOARD	
202	4-218-253-31	SCREW (M2.6), +BTTP	
203	1-687-669-12	SW BOARD	
204	4-244-034-01	BELT (LOADING)	
205	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING	
206	4-225-844-01	GEAR (LOADING A)	
207	4-224-613-01	GEAR (SHAFT)	
208	1-687-133-12	MOTOR (LD) BOARD	
210	4-244-108-01	GEAR, SWING	
211	4-224-609-01	GEAR (LOADING C)	
212	4-224-608-01	COLLAR, SWING	
213	3-016-533-11	WASHER (FR), STOPPER	
214	4-224-611-01	GEAR (LOADING B)	
215	4-224-606-01	GEAR (RV)	
216	4-243-818-01	GEAR (U/D)	
217	4-243-822-02	LEVER (LIFTER)	
218	X-4955-707-2	PULLEY (A5) ASSY, CHUCKING	

Ref. No.	Part No.	Description	Remarks
219	4-231-189-01	PULLEY (B), CHUCKING	
220	X-4955-536-1	HOLDER (213) ASSY	
222	4-227-549-11	INSULATOR	
223	4-227-045-31	SPRING (INSULATOR), COIL	
224	4-231-151-01	STOPPER (BU)	
225	4-218-253-31	SCREW (M2.6), +BTTP	
226	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
227	1-775-251-11	WIRE (FLAT TYPE) (27 CORE)	
228	A-4751-431-A	BD81A BOARD, COMPLETE	
⚠229	8-820-244-01	OPTICAL PICK-UP KSM-215DCP/C2NP	
230	1-471-035-11	MAGNET ASSY	
231	4-243-817-11	CHASSIS	
232	4-951-620-01	SCREW (2.6X8), +BVTP	
233	1-469-854-11	CORE, FERRITE	
M751	A-4736-655-A	MOTOR ASSY, LOADING	
RE701	1-477-680-12	ENCODER, ROTARY	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6 STREAM LED AMP

SECTION 7
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remarks
		6 STREAM LED BOARD			
		**********			
		< DIODE >			
LED610	6-500-809-01	DIODE SELU5223C-STP15 (ILLUMINATION LIGHT)			
LED611	6-500-809-01	DIODE SELU5223C-STP15 (ILLUMINATION LIGHT)			
LED612	6-500-809-01	DIODE SELU5223C-STP15 (ILLUMINATION LIGHT)			
LED613	6-500-809-01	DIODE SELU5223C-STP15 (ILLUMINATION LIGHT)			
LED614	6-500-809-01	DIODE SELU5223C-STP15 (ILLUMINATION LIGHT)			
LED615	6-500-809-01	DIODE SELU5223C-STP15 (ILLUMINATION LIGHT)			
		< RESISTOR >			
R673	1-216-837-11	METAL CHIP	22K	5%	1/10W
R699	1-216-182-00	RES-CHIP	220	5%	1/8W
R701	1-216-182-00	RES-CHIP	220	5%	1/8W
R703	1-216-182-00	RES-CHIP	220	5%	1/8W
R705	1-216-182-00	RES-CHIP	220	5%	1/8W
R707	1-216-182-00	RES-CHIP	220	5%	1/8W
R709	1-216-182-00	RES-CHIP	220	5%	1/8W
		< SWITCH >			
S660	1-418-632-11	ENCODER, ROTARY (MASTER VOLUME)			
SW601	1-786-289-11	SWITCH, DETECTION			
**********					
	A-4750-756-A	AMP BOARD, COMPLETE			
		**********			
	7-685-871-01	SCREW +BVTT	3X6	(S)	
		< CAPACITOR >			
C402	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C403	1-137-749-11	MYLAR	0.1uF		100V
C404	1-137-749-11	MYLAR	0.1uF		100V
C405	1-135-516-11	ELECT	3300uF	20%	63V
C406	1-135-516-11	ELECT	3300uF	20%	63V
C407	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C408	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C411	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C441	1-126-964-11	ELECT	10uF	20.00%	50V
C442	1-126-964-11	ELECT	10uF	20.00%	50V

Ref. No.	Part No.	Description			Remarks
C443	1-162-294-31	CERAMIC	0.001uF	10%	50V
C444	1-162-294-31	CERAMIC	0.001uF	10%	50V
C445	1-162-282-31	CERAMIC	100pF	10.00%	50V
C446	1-162-282-31	CERAMIC	100pF	10.00%	50V
C447	1-126-965-11	ELECT	22uF	20.00%	35V
C448	1-126-965-11	ELECT	22uF	20.00%	35V
C451	1-136-497-81	FILM	0.1uF	5.00%	50V
C452	1-136-497-81	FILM	0.1uF	5.00%	50V
C453	1-136-497-81	FILM	0.1uF	5.00%	50V
C454	1-136-497-81	FILM	0.1uF	5.00%	50V
C481	1-104-658-91	ELECT	100uF	20.00%	10V
C486	1-126-961-11	ELECT	2.2uF	20.00%	50V
C487	1-126-963-11	ELECT	4.7uF	20.00%	50V
C488	1-126-965-11	ELECT	22uF	20.00%	35V
C489	1-128-563-11	ELECT	100uF	20.00%	100V
C492	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
		< CONNECTOR >			
CN441	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
		< DIODE >			
D401	6-500-360-01	DIODE D10XB20			
D441	8-719-991-33	DIODE 1SS133T-77			
D442	8-719-991-33	DIODE 1SS133T-77			
D443	8-719-991-33	DIODE 1SS133T-77			
D481	8-719-991-33	DIODE 1SS133T-77			
D482	8-719-991-33	DIODE 1SS133T-77			
D483	8-719-991-33	DIODE 1SS133T-77			
		< TERMINAL >			
* EP401	1-537-738-21	TERMINAL, EARTH			
* EP402	1-537-738-21	TERMINAL, EARTH			
* EP491	1-537-738-21	TERMINAL, EARTH			
		< IC >			
⚠IC441	6-600-221-01	IC STK403-130			
		< TERMINAL BOARD >			
JK441	1-694-884-11	TERMINAL BOARD (4P) (SPEAKER)			
		< COIL >			
L441	1-422-009-13	COIL, AIR-CORE			
L442	1-422-009-13	COIL, AIR-CORE			

Ref. No.	Part No.	Description				Remarks
		< TRANSISTOR >				
Q441	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA			
Q442	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA			
Q481	8-729-119-79	TRANSISTOR	2SC2785TP-FEK			
Q482	8-729-119-79	TRANSISTOR	2SC2785TP-FEK			
Q483	8-729-119-79	TRANSISTOR	2SC2785TP-FEK			
Q484	8-729-119-79	TRANSISTOR	2SC2785TP-FEK			
Q485	8-729-119-76	TRANSISTOR	2SA1175TP-E			
Q486	8-729-119-79	TRANSISTOR	2SC2785TP-FEK			
Q487	8-729-119-79	TRANSISTOR	2SC2785TP-FEK			
Q488	8-729-142-46	TRANSISTOR	2SC2001TP-LK			
Q489	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA			
		< RESISTOR >				
R401	1-249-441-11	CARBON	100K	5%	1/4W	
R402	1-249-441-11	CARBON	100K	5%	1/4W	
R407	1-260-087-11	CARBON	100	5%	1/2W	
R411	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R412	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R413	1-249-425-11	CARBON	4.7K	5%	1/4W	
R414	1-249-425-11	CARBON	4.7K	5%	1/4W	
R441	1-249-417-11	CARBON	1K	5%	1/4W	F
R442	1-249-417-11	CARBON	1K	5%	1/4W	F
R443	1-249-437-11	CARBON	47K	5%	1/4W	
R444	1-249-437-11	CARBON	47K	5%	1/4W	
R445	1-249-417-11	CARBON	1K	5%	1/4W	F
R446	1-249-417-11	CARBON	1K	5%	1/4W	F
R447	1-249-437-11	CARBON	47K	5%	1/4W	
R448	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R451	1-217-156-00	METAL	0.22	10%	5W	
⚠R452	1-217-156-00	METAL	0.22	10%	5W	
R453	1-260-076-11	CARBON	10	5%	1/2W	
R454	1-260-076-11	CARBON	10	5%	1/2W	
R455	1-249-417-11	CARBON	1K	5%	1/4W	F
R456	1-249-417-11	CARBON	1K	5%	1/4W	F
R457	1-249-433-11	CARBON	22K	5%	1/4W	
R458	1-249-433-11	CARBON	22K	5%	1/4W	
R459	1-249-437-11	CARBON	47K	5%	1/4W	
R460	1-249-437-11	CARBON	47K	5%	1/4W	
R461	1-260-076-11	CARBON	10	5%	1/2W	
R462	1-260-076-11	CARBON	10	5%	1/2W	
R465	1-249-437-11	CARBON	47K	5%	1/4W	
R466	1-249-438-11	CARBON	56K	5%	1/4W	
R467	1-249-435-11	CARBON	33K	5%	1/4W	
R481	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R482	1-249-429-11	CARBON	10K	5%	1/4W	
R483	1-247-791-91	CARBON	22	5%	1/4W	
R484	1-249-438-11	CARBON	56K	5%	1/4W	
R485	1-249-441-11	CARBON	100K	5%	1/4W	
R486	1-249-441-11	CARBON	100K	5%	1/4W	
R487	1-249-435-11	CARBON	33K	5%	1/4W	
R488	1-249-433-11	CARBON	22K	5%	1/4W	
R489	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R490	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R491	1-249-433-11	CARBON	22K	5%	1/4W	
R492	1-249-417-11	CARBON	1K	5%	1/4W	F
R493	1-249-435-11	CARBON	33K	5%	1/4W	

Ref. No.	Part No.	Description			Remarks
R494	1-249-421-11	CARBON	2.2K	5%	1/4W F
⚠R495	1-217-831-11	FUSIBLE	1	5%	1/4W
⚠R496	1-212-881-11	FUSIBLE	100	5%	1/4W
		< RELAY >			
RY441	1-755-373-11	RELAY			
		< THERMISTOR >			
TH441	1-807-796-11	THERMISTOR			
**********					
	A-4751-431-A	BD81A BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C10	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C11	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C14	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C15	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C16	1-115-156-11	CERAMIC CHIP	1uF		10V
C17	1-126-246-11	ELECT CHIP	220uF	20%	4V
C18	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C111	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C112	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C113	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C114	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C115	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C116	1-128-995-21	ELECT CHIP	100uF	20%	10V
C122	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C123	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C124	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C131	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C132	1-117-863-11	CERAMIC CHIP	0.47uF	10.00%	6.3V
C133	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C134	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C141	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C142	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C151	1-128-995-21	ELECT CHIP	100uF	20%	10V
C152	1-115-156-11	CERAMIC CHIP	1uF		10V
C161	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C162	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C163	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C164	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C171	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C172	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C174	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C181	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C182	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C184	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C185	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C186	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

BD81A

Ref. No.	Part No.	Description			Remarks
C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C196	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
C209	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C210	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C211	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C212	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C213	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C251	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C252	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C255	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C257	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C258	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C259	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C260	1-128-394-11	ELECT CHIP	220uF	20%	10V
C302	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C303	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C304	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C305	1-126-246-11	ELECT CHIP	220uF	20%	4V
C306	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C307	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C308	1-126-208-21	ELECT CHIP	47uF	20.00%	4V
C309	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C310	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C311	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C312	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C313	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C314	1-126-208-21	ELECT CHIP	47uF	20.00%	4V
C315	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C316	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C318	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C320	1-216-864-11	METAL CHIP	0	5%	1/10W
		< CONNECTOR >			
CN101	1-770-425-11	CONNECTOR, FFC/FPC 16P			
CN201	1-818-350-11	CONNECTOR (FFC) 27P			
		< FERRITE BEAD >			
FB301	1-216-864-11	METAL CHIP	0	5%	1/10W
		< IC >			
IC101	8-752-425-12	IC CXD3059AR			
IC251	6-705-808-01	IC BA5947FM			
IC301	6-705-365-01	IC TC94A34FG-002			
IC303	6-705-807-01	IC BH15FB1WG			
		< TRANSISTOR >			
Q10	6-550-363-01	TRANSISTOR	2SB1690KT146		
		< RESISTOR >			
R10	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R11	1-216-864-11	METAL CHIP	0	5%	1/10W
R12	1-216-845-11	METAL CHIP	100K	5%	1/10W
R13	1-218-446-11	METAL CHIP	1	5%	1/10W
R111	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R112	1-216-835-11	METAL CHIP	15K	5%	1/10W
R113	1-216-821-11	METAL CHIP	1K	5%	1/10W
R114	1-216-835-11	METAL CHIP	15K	5%	1/10W
R121	1-216-835-11	METAL CHIP	15K	5%	1/10W
R131	1-216-857-11	METAL CHIP	1M	5%	1/10W
R132	1-216-833-11	METAL CHIP	10K	5%	1/10W
R133	1-216-848-11	METAL CHIP	180K	5%	1/10W
R141	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R142	1-216-821-11	METAL CHIP	1K	5%	1/10W
R143	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R151	1-216-864-11	METAL CHIP	0	5%	1/10W
R161	1-216-809-11	METAL CHIP	100	5%	1/10W
R162	1-216-841-11	METAL CHIP	47K	5%	1/10W
R163	1-216-809-11	METAL CHIP	100	5%	1/10W
R165	1-216-864-11	METAL CHIP	0	5%	1/10W
R171	1-216-817-11	METAL CHIP	470	5%	1/10W
R172	1-216-857-11	METAL CHIP	1M	5%	1/10W
R173	1-216-864-11	METAL CHIP	0	5%	1/10W
R181	1-216-809-11	METAL CHIP	100	5%	1/10W
R182	1-216-809-11	METAL CHIP	100	5%	1/10W
R191	1-216-864-11	METAL CHIP	0	5%	1/10W
R201	1-500-445-21	INDUCTOR	0uH		
R203	1-216-864-11	METAL CHIP	0	5%	1/10W
R204	1-500-445-21	INDUCTOR	0uH		
R205	1-216-864-11	METAL CHIP	0	5%	1/10W
R251	1-216-833-11	METAL CHIP	10K	5%	1/10W
R252	1-216-837-11	METAL CHIP	22K	5%	1/10W
R253	1-216-833-11	METAL CHIP	10K	5%	1/10W
R301	1-216-845-11	METAL CHIP	100K	5%	1/10W
R302	1-216-833-11	METAL CHIP	10K	5%	1/10W
R303	1-216-845-11	METAL CHIP	100K	5%	1/10W
R305	1-216-845-11	METAL CHIP	100K	5%	1/10W
R306	1-216-864-11	METAL CHIP	0	5%	1/10W
R307	1-216-833-11	METAL CHIP	10K	5%	1/10W
R313	1-216-813-11	METAL CHIP	220	5%	1/10W
R351	1-216-809-11	METAL CHIP	100	5%	1/10W
R352	1-216-809-11	METAL CHIP	100	5%	1/10W
R353	1-216-809-11	METAL CHIP	100	5%	1/10W
R354	1-216-809-11	METAL CHIP	100	5%	1/10W
R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R402	1-216-809-11	METAL CHIP	100	5%	1/10W
R403	1-216-809-11	METAL CHIP	100	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/10W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-833-11	METAL CHIP	10K	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
		< SWITCH >			
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)			

BD81A | CONNECT | DRIVER | GAME JACK | H/P JACK | MAIN

Ref. No.	Part No.	Description			Remarks
		< VIBRATOR >			
X171	1-767-408-21	VIBRATOR, CRYSTAL (16.9MHz)			
**********					
		CONNECT BOARD			
		**********			
		< CAPACITOR >			
C251	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C252	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C253	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C254	1-164-315-11	CERAMIC CHIP	470PF	5.00%	50V
C255	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C256	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C257	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN251	1-779-295-11	CONNECTOR,FFC(LIF(NON-ZIF))27P			
CN253	1-784-778-11	CONNECTOR, FFC 17P			
* CN254	1-564-725-11	PIN, CONNECTOR (SMALL TYPE) 9P			
		< FERRITE BEAD >			
FB251	1-469-116-21	FERRITE	0uH		
FB252	1-469-116-21	FERRITE	0uH		
**********					
	1-687-135-12	DRIVER BOARD			
		**********			
		< CAPACITOR >			
C715	1-126-933-11	ELECT	100uF	20.00%	16V
C731	1-126-964-11	ELECT	10uF	20.00%	50V
C735	1-164-159-21	CERAMIC	0.1uF		50V
C736	1-164-159-21	CERAMIC	0.1uF		50V
C737	1-164-159-21	CERAMIC	0.1uF		50V
C741	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C751	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C752	1-164-159-21	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN701	1-785-338-11	PIN, CONNECTOR(LIGHT ANGLE)12P			
CN702	1-784-766-11	CONNECTOR, FFC 5P			
* CN703	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN704	1-785-328-11	PIN, CONNECTOR (LIGHT ANGRE)2P			
		< DIODE >			
D701	8-719-921-42	DIODE MTZJ-T-77-5.1A			
D711	8-719-109-69	DIODE MTZJ-T-77-3.6B			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
IC712	8-759-598-69	IC BA6956AN			
		< TRANSISTOR >			
Q731	8-729-029-66	TRANSISTOR	DTC114ESA-TP		
		< RESISTOR >			
R701	1-249-413-11	CARBON	470	5%	1/4W F
R702	1-247-807-31	CARBON	100	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W F
R712	1-249-425-11	CARBON	4.7K	5%	1/4W F
R713	1-249-433-11	CARBON	22K	5%	1/4W
R721	1-249-425-11	CARBON	4.7K	5%	1/4W F
R722	1-249-425-11	CARBON	4.7K	5%	1/4W F
R723	1-249-425-11	CARBON	4.7K	5%	1/4W F
R731	1-247-807-31	CARBON	100	5%	1/4W
R732	1-249-429-11	CARBON	10K	5%	1/4W
R733	1-249-417-11	CARBON	1K	5%	1/4W F
R734	1-249-430-11	CARBON	12K	5%	1/4W
R735	1-247-807-31	CARBON	100	5%	1/4W
R751	1-249-425-11	CARBON	4.7K	5%	1/4W F
**********					
		GAME JACK BOARD			
		**********			
		< CAPACITOR >			
C801	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C802	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C803	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C804	1-165-128-11	CERAMIC CHIP	0.22uF		16V
		< JACK >			
J804	1-815-684-11	JACK, PIN 3P (GAME INPUT)			
		< JUMPER RESISTOR >			
JR801	1-216-864-11	METAL CHIP	0	5%	1/10W
		< RESISTOR >			
R801	1-216-833-11	METAL CHIP	10K	5%	1/10W
R802	1-216-833-11	METAL CHIP	10K	5%	1/10W
R803	1-216-837-11	METAL CHIP	22K	5%	1/10W
R804	1-216-837-11	METAL CHIP	22K	5%	1/10W
**********					
		H/P JACK BOARD			
		**********			
		< CAPACITOR >			
C830	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C831	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C832	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< JACK >			
J801	1-793-829-11	JACK, HEADPHONE (PHONES)			
**********					
	A-4750-741-A	MAIN BOARD, COMPLETE			
		**********			
	7-685-871-01	SCREW +BVTT 3X6 (S)			
		< CAPACITOR >			
C101	1-126-960-11	ELECT	1uF	20.00%	50V
C102	1-126-960-11	ELECT	1uF	20.00%	50V
C103	1-126-956-91	ELECT	0.1uF	20.00%	50V
C104	1-126-956-91	ELECT	0.1uF	20.00%	50V
C105	1-164-816-11	CERAMIC CHIP	220PF	2.00%	50V

MAIN

Ref. No.	Part No.	Description			Remarks
C106	1-130-483-00	MYLAR	0.01uF	5%	50V
C107	1-126-964-11	ELECT	10uF	20.00%	50V
C108	1-164-816-11	CERAMIC CHIP	220PF	2.00%	50V
C109	1-130-483-00	MYLAR	0.01uF	5%	50V
C110	1-126-964-11	ELECT	10uF	20.00%	50V
C111	1-126-960-11	ELECT	1uF	20.00%	50V
C112	1-126-960-11	ELECT	1uF	20.00%	50V
C113	1-126-960-11	ELECT	1uF	20.00%	50V
C114	1-126-960-11	ELECT	1uF	20.00%	50V
C115	1-130-483-00	MYLAR	0.01uF	5%	50V
C116	1-164-816-11	CERAMIC CHIP	220PF	2.00%	50V
C117	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C118	1-126-964-11	ELECT	10uF	20.00%	50V
C119	1-130-483-00	MYLAR	0.01uF	5%	50V
C120	1-164-816-11	CERAMIC CHIP	220PF	2.00%	50V
C121	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C122	1-126-964-11	ELECT	10uF	20.00%	50V
C123	1-126-965-91	ELECT	22uF	20.00%	50V
C124	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C125	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C126	1-162-971-91	CERAMIC CHIP	1000PF	10%	50V
C127	1-104-658-91	ELECT	100uF	20.00%	10V
C128	1-104-658-91	ELECT	100uF	20.00%	10V
C129	1-126-947-11	ELECT	47uF	20.00%	16V
C130	1-126-947-11	ELECT	47uF	20.00%	16V
C131	1-131-688-31	MYLAR	0.047uF	5.00%	50V
C132	1-126-947-11	ELECT	47uF	20.00%	16V
C133	1-131-688-31	MYLAR	0.047uF	5.00%	50V
C134	1-130-495-00	MYLAR	0.1uF	5%	50V
C135	1-131-693-31	MYLAR	0.12uF	5.00%	50V
C136	1-131-693-31	MYLAR	0.12uF	5.00%	50V
C137	1-126-964-11	ELECT	10uF	20.00%	50V
C138	1-126-964-11	ELECT	10uF	20.00%	50V
C139	1-131-693-31	MYLAR	0.12uF	5.00%	50V
C140	1-131-693-31	MYLAR	0.12uF	5.00%	50V
C141	1-126-964-11	ELECT	10uF	20.00%	50V
C142	1-126-964-11	ELECT	10uF	20.00%	50V
C143	1-126-960-11	ELECT	1uF	20.00%	50V
C144	1-130-495-00	MYLAR	0.1uF	5%	50V
C145	1-126-964-11	ELECT	10uF	20.00%	50V
C146	1-130-495-00	MYLAR	0.1uF	5%	50V
C147	1-126-964-11	ELECT	10uF	20.00%	50V
C148	1-130-483-00	MYLAR	0.01uF	5%	50V
C149	1-130-483-00	MYLAR	0.01uF	5%	50V
C150	1-130-483-00	MYLAR	0.01uF	5%	50V
C151	1-130-483-00	MYLAR	0.01uF	5%	50V
C152	1-130-475-00	MYLAR	0.0022uF	5%	50V
C153	1-130-475-00	MYLAR	0.0022uF	5%	50V
C154	1-130-479-00	MYLAR	0.0047uF	5%	50V
C157	1-126-960-11	ELECT	1uF	20.00%	50V
C159	1-126-960-11	ELECT	1uF	20.00%	50V
C160	1-126-960-11	ELECT	1uF	20.00%	50V
C162	1-126-960-11	ELECT	1uF	20.00%	50V
C164	1-126-960-11	ELECT	1uF	20.00%	50V
C165	1-126-960-11	ELECT	1uF	20.00%	50V
C166	1-126-960-11	ELECT	1uF	20.00%	50V
C175	1-109-953-11	ELECT	2.2uF	20.00%	50V
C176	1-126-964-11	ELECT	10uF	20.00%	50V

Ref. No.	Part No.	Description			Remarks
C177	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C178	1-126-947-11	ELECT	47uF	20.00%	16V
C179	1-162-949-11	CERAMIC CHIP	47uF	5.00%	50V
C180	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C181	1-162-949-11	CERAMIC CHIP	47uF	5.00%	50V
C182	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C183	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C184	1-126-947-11	ELECT	47uF	20.00%	16V
C185	1-126-964-11	ELECT	10uF	20.00%	50V
C186	1-126-947-11	ELECT	47uF	20.00%	16V
C187	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C188	1-126-965-91	ELECT	22uF	20.00%	50V
C189	1-126-965-91	ELECT	22uF	20.00%	50V
C190	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C191	1-126-961-11	ELECT	2.2uF	20.00%	50V
C192	1-126-961-11	ELECT	2.2uF	20.00%	50V
C193	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C194	1-126-964-11	ELECT	10uF	20.00%	50V
C196	1-126-947-11	ELECT	47uF	20.00%	16V
C198	1-137-190-91	FILM	0.22uF	5.00%	50V
C199	1-136-171-00	FILM	0.33uF	5.00%	50V
C202	1-126-933-11	ELECT	100uF	20.00%	16V
C203	1-126-964-11	ELECT	10uF	20.00%	50V
C206	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C211	1-109-953-11	ELECT	2.2uF	20.00%	50V
C212	1-126-964-11	ELECT	10uF	20.00%	50V
C213	1-126-964-11	ELECT	10uF	20.00%	50V
C214	1-126-926-11	ELECT	1000uF	20.00%	10V
C216	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C217	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C222	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C228	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C229	1-126-963-11	ELECT	4.7uF	20.00%	50V
C230	1-126-947-11	ELECT	47uF	20.00%	16V
C231	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C235	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C241	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C242	1-130-479-00	MYLAR	0.0047uF	5%	50V
C243	1-130-485-00	MYLAR	0.015uF	5%	50V
C244	1-130-473-00	MYLAR	0.0015uF	5%	50V
C245	1-164-357-11	CERAMIC CHIP	0.001uF	5.00%	50V
C246	1-130-485-00	MYLAR	0.015uF	5%	50V
C247	1-164-357-11	CERAMIC CHIP	0.001uF	5.00%	50V
C248	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C249	1-126-964-11	ELECT	10uF	20.00%	50V
C250	1-126-947-11	ELECT	47uF	20.00%	16V
C251	1-126-947-11	ELECT	47uF	20.00%	16V
C252	1-126-933-11	ELECT	100uF	20.00%	16V
C253	1-126-956-91	ELECT	0.1uF	20.00%	50V
C258	1-126-959-11	ELECT	0.47uF	20.00%	50V
C259	1-126-957-11	ELECT	0.22uF	20.00%	50V
C264	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V
C265	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V
C266	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V
C267	1-162-971-11	CERAMIC CHIP	0.001uF	10.00%	50V
C270	1-126-964-11	ELECT	10uF	20.00%	50V
C274	1-162-949-11	CERAMIC CHIP	47uF	5.00%	50V

Ref. No.	Part No.	Description			Remarks
C275	1-162-949-11	CERAMIC CHIP	47uF	5.00%	50V
C301	1-130-495-00	MYLAR	0.1uF	5%	50V
C302	1-130-495-00	MYLAR	0.1uF	5%	50V
C303	1-130-495-00	MYLAR	0.1uF	5%	50V
C304	1-130-495-00	MYLAR	0.1uF	5%	50V
C305	1-130-495-00	MYLAR	0.1uF	5%	50V
C306	1-130-495-00	MYLAR	0.1uF	5%	50V
C308	1-126-965-91	ELECT	22uF	20.00%	50V
C309	1-126-965-91	ELECT	22uF	20.00%	50V
C310	1-126-944-11	ELECT	3300uF	20.00%	25V
C311	1-126-964-11	ELECT	10uF	20.00%	50V
C312	1-126-964-11	ELECT	10uF	20.00%	50V
C313	1-126-943-11	ELECT	2200uF	20.00%	25V
C315	1-126-933-11	ELECT	100uF	20.00%	16V
C316	1-126-943-11	ELECT	2200uF	20.00%	25V
C318	1-126-947-11	ELECT	47uF	20.00%	16V
C321	1-126-961-11	ELECT	2.2uF	20.00%	50V
C342	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C351	1-164-357-11	CERAMIC CHIP	0.001uF	5.00%	50V
C352	1-126-965-91	ELECT	22uF	20.00%	50V
C353	1-126-961-11	ELECT	2.2uF	20.00%	50V
C354	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C371	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C372	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C373	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C374	1-126-947-11	ELECT	47uF	20.00%	16V
C375	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C376	1-126-961-11	ELECT	2.2uF	20.00%	50V
		< CONNECTOR >			
CN101	1-568-830-11	CONNECTOR, FFC 11P			
* CN103	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
* CN112	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CN301	1-568-950-11	PIN, CONNECTOR 12P			
CN302	1-568-844-11	CONNECTOR, FFC 29P			
CN305	1-568-937-11	PIN, CONNECTOR (STRAIGHT) 10P			
CN307	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
CN308	1-564-506-11	PLUG, CONNECTOR 3P			
CN309	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
* CN314	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
		< DIODE >			
D201	8-719-988-61	DIODE	1SS355TE-17		
D202	8-719-921-88	DIODE	MTZJ-13B		
D206	8-719-988-61	DIODE	1SS355TE-17		
D207	8-719-988-61	DIODE	1SS355TE-17		
D211	8-719-988-61	DIODE	1SS355TE-17		
D212	8-719-988-61	DIODE	1SS355TE-17		
D213	8-719-988-61	DIODE	1SS355TE-17		
D214	8-719-988-61	DIODE	1SS355TE-17		
D215	8-719-988-61	DIODE	1SS355TE-17		
D301	6-500-522-21	DIODE	10EDB40-TB3		
D302	6-500-522-21	DIODE	10EDB40-TB3		
D303	6-500-522-21	DIODE	10EDB40-TB3		
D304	6-500-522-21	DIODE	10EDB40-TB3		
D305	6-500-522-21	DIODE	10EDB40-TB3		
D306	6-500-522-21	DIODE	10EDB40-TB3		
D307	6-500-522-21	DIODE	10EDB40-TB3		

Ref. No.	Part No.	Description			Remarks
D308	6-500-522-21	DIODE	10EDB40-TB3		
D309	6-500-522-21	DIODE	10EDB40-TB3		
D310	6-500-522-21	DIODE	10EDB40-TB3		
D311	6-500-522-21	DIODE	10EDB40-TB3		
D312	6-500-522-21	DIODE	10EDB40-TB3		
D313	8-719-210-21	DIODE	11EQS04-TA1B		
D314	6-500-522-21	DIODE	10EDB40-TB3		
D315	6-500-522-21	DIODE	10EDB40-TB3		
D316	8-719-988-61	DIODE	1SS355TE-17		
D321	8-719-988-61	DIODE	1SS355TE-17		
D322	8-719-988-61	DIODE	1SS355TE-17		
D324	6-500-522-21	DIODE	10EDB40-TB3		
D325	6-500-522-21	DIODE	10EDB40-TB3		
D326	6-500-522-21	DIODE	10EDB40-TB3		
		< TERMINAL BOARD >			
EP101	1-537-770-21	TERMINAL BOARD, GROUND			
EP301	1-537-770-21	TERMINAL BOARD, GROUND			
		< RESISTOR >			
FB201	1-216-864-11	METAL CHIP	0	5%	1/10W
FB202	1-216-864-11	METAL CHIP	0	5%	1/10W
FB203	1-216-864-11	METAL CHIP	0	5%	1/10W
FB204	1-216-864-11	METAL CHIP	0	5%	1/10W
		< IC >			
IC101	6-705-852-01	IC	BD3401KS2		
IC102	8-759-710-28	IC	NJM4565M-A(TE2)		
IC104	8-759-710-28	IC	NJM4565M-A(TE2)		
IC201	8-759-508-69	IC	BA3126N		
IC301	6-702-771-01	IC	TA78033LS		
IC302	6-702-771-01	IC	TA78033LS		
IC303	8-759-701-59	IC	TA7809S		
IC304	8-759-701-59	IC	TA7809S		
IC371	6-704-046-01	IC	BU2099FV		
		< COIL >			
L101	1-424-849-11	COIL, OSCILLATION (BIAS)			
		< TRANSISTOR >			
Q101	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q102	6-550-289-01	TRANSISTOR	2SA1235F		
Q103	8-729-802-80	TRANSISTOR	2SC3661-TA		
Q104	8-729-802-80	TRANSISTOR	2SC3661-TA		
Q105	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q106	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q107	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q108	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q303	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q304	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q305	6-550-289-01	TRANSISTOR	2SA1235F		
Q306	8-729-802-80	TRANSISTOR	2SC3661-TA		
Q307	8-729-802-80	TRANSISTOR	2SC3661-TA		
Q308	6-550-289-01	TRANSISTOR	2SA1235F		
Q309	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q310	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q311	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q312	8-729-041-19	TRANSISTOR	2SA953-T-K		

MAIN

Ref. No.	Part No.	Description			Remarks
Q313	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q314	6-550-289-01	TRANSISTOR	2SA1235F		
Q315	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q321	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q322	6-550-289-01	TRANSISTOR	2SA1235F		
Q323	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q324	8-729-140-04	TRANSISTOR	2SB1116-TP-LK		
Q327	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q351	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q352	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q361	6-550-289-01	TRANSISTOR	2SA1235F		
Q362	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q371	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
		< RESISTOR >			
R101	1-216-833-11	METAL CHIP	10K	5%	1/10W
R102	1-216-833-11	METAL CHIP	10K	5%	1/10W
R103	1-216-851-11	METAL CHIP	330K	5%	1/10W
R104	1-216-835-11	METAL CHIP	15K	5%	1/10W
R105	1-216-816-11	METAL CHIP	390	5%	1/10W
R106	1-216-851-11	METAL CHIP	330K	5%	1/10W
R107	1-216-835-11	METAL CHIP	15K	5%	1/10W
R108	1-216-816-11	METAL CHIP	390	5%	1/10W
R109	1-216-853-11	METAL CHIP	470K	5%	1/10W
R110	1-216-851-11	METAL CHIP	330K	5%	1/10W
R111	1-216-847-11	METAL CHIP	150K	5%	1/10W
R112	1-216-853-11	METAL CHIP	470K	5%	1/10W
R113	1-216-851-11	METAL CHIP	330K	5%	1/10W
R114	1-216-847-11	METAL CHIP	150K	5%	1/10W
R115	1-216-857-11	METAL CHIP	1M	5%	1/10W
R116	1-216-809-11	METAL CHIP	100	5%	1/10W
R117	1-216-809-11	METAL CHIP	100	5%	1/10W
R118	1-216-833-11	METAL CHIP	10K	5%	1/10W
R119	1-216-841-11	METAL CHIP	47K	5%	1/10W
R120	1-216-857-11	METAL CHIP	1M	5%	1/10W
R121	1-216-841-11	METAL CHIP	47K	5%	1/10W
R123	1-216-833-11	METAL CHIP	10K	5%	1/10W
R124	1-216-833-11	METAL CHIP	10K	5%	1/10W
R125	1-216-833-11	METAL CHIP	10K	5%	1/10W
R126	1-216-833-11	METAL CHIP	10K	5%	1/10W
R127	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R128	1-216-833-11	METAL CHIP	10K	5%	1/10W
R129	1-216-841-11	METAL CHIP	47K	5%	1/10W
R131	1-216-833-11	METAL CHIP	10K	5%	1/10W
R132	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R133	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R134	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R135	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R136	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R137	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R138	1-216-821-11	METAL CHIP	1K	5%	1/10W
R139	1-216-864-11	METAL CHIP	0	5%	1/10W
R141	1-216-821-11	METAL CHIP	1K	5%	1/10W
R142	1-216-821-11	METAL CHIP	1K	5%	1/10W
R151	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R152	1-216-833-11	METAL CHIP	10K	5%	1/10W
R153	1-216-833-11	METAL CHIP	10K	5%	1/10W
R154	1-216-833-11	METAL CHIP	10K	5%	1/10W
R155	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R156	1-216-853-11	METAL CHIP	470K	5%	1/10W
R157	1-216-841-11	METAL CHIP	47K	5%	1/10W
R158	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R159	1-216-833-11	METAL CHIP	10K	5%	1/10W
R160	1-216-833-11	METAL CHIP	10K	5%	1/10W
R161	1-216-833-11	METAL CHIP	10K	5%	1/10W
R162	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R163	1-216-833-11	METAL CHIP	10K	5%	1/10W
R164	1-216-833-11	METAL CHIP	10K	5%	1/10W
R165	1-216-833-11	METAL CHIP	10K	5%	1/10W
R166	1-216-833-11	METAL CHIP	10K	5%	1/10W
R167	1-216-833-11	METAL CHIP	10K	5%	1/10W
R168	1-216-845-11	METAL CHIP	100K	5%	1/10W
R169	1-216-845-11	METAL CHIP	100K	5%	1/10W
R170	1-216-833-11	METAL CHIP	10K	5%	1/10W
R171	1-216-833-11	METAL CHIP	10K	5%	1/10W
R172	1-216-809-11	METAL CHIP	100	5%	1/10W
R173	1-216-833-11	METAL CHIP	10K	5%	1/10W
R174	1-216-833-11	METAL CHIP	10K	5%	1/10W
R175	1-216-833-11	METAL CHIP	10K	5%	1/10W
R176	1-216-849-11	METAL CHIP	220K	5%	1/10W
R177	1-216-849-11	METAL CHIP	220K	5%	1/10W
R178	1-216-833-11	METAL CHIP	10K	5%	1/10W
R181	1-216-837-11	METAL CHIP	22K	5%	1/10W
R182	1-216-841-11	METAL CHIP	47K	5%	1/10W
R184	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R186	1-216-839-11	METAL CHIP	33K	5%	1/10W
R187	1-216-841-11	METAL CHIP	47K	5%	1/10W
R189	1-216-809-11	METAL CHIP	100	5%	1/10W
R192	1-216-837-11	METAL CHIP	22K	5%	1/10W
R193	1-216-821-11	METAL CHIP	1K	5%	1/10W
R194	1-216-831-11	METAL CHIP	6.8K	5%	1/10W
R195	1-216-831-11	METAL CHIP	6.8K	5%	1/10W
R196	1-216-864-11	METAL CHIP	0	5%	1/10W
R197	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R198	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R199	1-216-849-11	METAL CHIP	220K	5%	1/10W
R201	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R202	1-216-833-11	METAL CHIP	10K	5%	1/10W
R203	1-216-833-11	METAL CHIP	10K	5%	1/10W
R204	1-216-833-11	METAL CHIP	10K	5%	1/10W
R205	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R206	1-216-841-11	METAL CHIP	47K	5%	1/10W
R207	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R208	1-216-821-11	METAL CHIP	1K	5%	1/10W
R209	1-216-833-11	METAL CHIP	10K	5%	1/10W
R210	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R211	1-216-821-11	METAL CHIP	1K	5%	1/10W
R212	1-216-833-11	METAL CHIP	10K	5%	1/10W
R213	1-216-821-11	METAL CHIP	1K	5%	1/10W
R214	1-216-821-11	METAL CHIP	1K	5%	1/10W
R216	1-216-806-11	METAL CHIP	56	5%	1/10W
R217	1-216-806-11	METAL CHIP	56	5%	1/10W
R218	1-215-891-11	METAL OXIDE	680	5%	2W
R219	1-215-891-11	METAL OXIDE	680	5%	2W
R220	1-216-837-11	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R221	1-216-837-11	METAL CHIP	22K	5%	1/10W
R222	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R223	1-216-845-11	METAL CHIP	100K	5%	1/10W
R225	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R226	1-216-841-11	METAL CHIP	47K	5%	1/10W
R227	1-216-821-11	METAL CHIP	1K	5%	1/10W
R228	1-216-821-11	METAL CHIP	1K	5%	1/10W
R229	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R230	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R231	1-216-833-11	METAL CHIP	10K	5%	1/10W
R232	1-216-833-11	METAL CHIP	10K	5%	1/10W
R241	1-216-797-11	METAL CHIP	10	5%	1/10W
R242	1-216-838-11	METAL CHIP	27K	5%	1/10W
R243	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R244	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R245	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R246	1-216-809-11	METAL CHIP	100	5%	1/10W
R247	1-216-833-11	METAL CHIP	10K	5%	1/10W
R248	1-216-833-11	METAL CHIP	10K	5%	1/10W
R249	1-216-841-11	METAL CHIP	47K	5%	1/10W
R250	1-216-833-11	METAL CHIP	10K	5%	1/10W
R251	1-216-833-11	METAL CHIP	10K	5%	1/10W
R252	1-216-864-11	METAL CHIP	0	5%	1/10W
R253	1-216-809-11	METAL CHIP	100	5%	1/10W
R262	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R263	1-216-857-11	METAL CHIP	1M	5%	1/10W
R264	1-216-821-11	METAL CHIP	1K	5%	1/10W
R265	1-216-833-11	METAL CHIP	10K	5%	1/10W
R266	1-216-845-11	METAL CHIP	100K	5%	1/10W
R268	1-216-833-11	METAL CHIP	10K	5%	1/10W
R269	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R270	1-216-821-11	METAL CHIP	1K	5%	1/10W
R271	1-216-833-11	METAL CHIP	10K	5%	1/10W
R272	1-216-853-11	METAL CHIP	470K	5%	1/10W
R273	1-216-864-11	METAL CHIP	0	5%	1/10W
R274	1-216-864-11	METAL CHIP	0	5%	1/10W
R275	1-216-864-11	METAL CHIP	0	5%	1/10W
R281	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R282	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R283	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R284	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R306	1-216-833-11	METAL CHIP	10K	5%	1/10W
R307	1-216-833-11	METAL CHIP	10K	5%	1/10W
R308	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R310	1-216-833-11	METAL CHIP	10K	5%	1/10W
R311	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R312	1-216-837-11	METAL CHIP	22K	5%	1/10W
R313	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R321	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R322	1-216-837-11	METAL CHIP	22K	5%	1/10W
R323	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R324	1-216-833-11	METAL CHIP	10K	5%	1/10W
R325	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R341	1-216-833-11	METAL CHIP	10K	5%	1/10W
R342	1-216-821-11	METAL CHIP	1K	5%	1/10W
R343	1-216-837-11	METAL CHIP	22K	5%	1/10W
R344	1-216-837-11	METAL CHIP	22K	5%	1/10W
R345	1-216-833-11	METAL CHIP	10K	5%	1/10W
R346	1-216-821-11	METAL CHIP	1K	5%	1/10W
R347	1-216-837-11	METAL CHIP	22K	5%	1/10W
R348	1-216-837-11	METAL CHIP	22K	5%	1/10W
R351	1-216-835-11	METAL CHIP	15K	5%	1/10W
R352	1-216-845-11	METAL CHIP	100K	5%	1/10W
R353	1-216-841-11	METAL CHIP	47K	5%	1/10W
R354	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R356	1-216-817-11	METAL CHIP	470	5%	1/10W
R357	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R358	1-216-809-11	METAL CHIP	100	5%	1/10W
R361	1-216-833-11	METAL CHIP	10K	5%	1/10W
R362	1-216-821-11	METAL CHIP	1K	5%	1/10W
R363	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R364	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R371	1-216-809-11	METAL CHIP	100	5%	1/10W
R372	1-216-809-11	METAL CHIP	100	5%	1/10W
R373	1-216-809-11	METAL CHIP	100	5%	1/10W
R374	1-216-833-11	METAL CHIP	10K	5%	1/10W
R375	1-216-833-11	METAL CHIP	10K	5%	1/10W
R376	1-216-833-11	METAL CHIP	10K	5%	1/10W
R377	1-216-833-11	METAL CHIP	10K	5%	1/10W
R378	1-216-833-11	METAL CHIP	10K	5%	1/10W
R379	1-216-833-11	METAL CHIP	10K	5%	1/10W
R380	1-216-833-11	METAL CHIP	10K	5%	1/10W
R381	1-216-833-11	METAL CHIP	10K	5%	1/10W
R382	1-216-833-11	METAL CHIP	10K	5%	1/10W
R383	1-216-833-11	METAL CHIP	10K	5%	1/10W
R384	1-216-833-11	METAL CHIP	10K	5%	1/10W
R385	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R386	1-216-837-11	METAL CHIP	22K	5%	1/10W
R387	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R388	1-216-837-11	METAL CHIP	22K	5%	1/10W
R389	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R390	1-216-837-11	METAL CHIP	22K	5%	1/10W
R391	1-216-833-11	METAL CHIP	10K	5%	1/10W
R392	1-216-821-11	METAL CHIP	1K	5%	1/10W
R393	1-216-833-11	METAL CHIP	10K	5%	1/10W
R394	1-216-821-11	METAL CHIP	1K	5%	1/10W
R395	1-216-837-11	METAL CHIP	22K	5%	1/10W
R396	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R397	1-216-833-11	METAL CHIP	10K	5%	1/10W

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1-687-133-12 MOTOR (LD) BOARD
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1-687-134-12 MOTOR (TB) BOARD
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< CONNECTOR >

CN742 1-784-727-11 CONNECTOR, FFC 5P

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PANEL

Ref. No.	Part No.	Description			Remarks
		PANEL BOARD			
		**********			
		< CAPACITOR >			
C601	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C602	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C603	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C604	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C605	1-126-163-11	ELECT	4.7uF	20%	50V
C606	1-115-156-11	CERAMIC CHIP	1uF		10V
C607	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C609	1-115-156-11	CERAMIC CHIP	1uF		10V
C610	1-126-916-11	ELECT	1000uF	20.00%	6.3V
C611	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C612	1-126-157-11	ELECT	10uF	20%	16V
C613	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C614	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C615	1-124-257-00	ELECT	2.2uF	20%	50V
C617	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C619	1-124-589-11	ELECT	47uF	20%	16V
C620	1-119-772-91	ELECT	47uF	20.00%	35V
C621	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C622	1-126-163-11	ELECT	4.7uF	20%	50V
C623	1-126-163-11	ELECT	4.7uF	20%	50V
C624	1-162-918-11	CERAMIC CHIP	18PF	5.00%	50V
C625	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C626	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C628	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C629	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C630	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C631	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C632	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C633	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C634	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C635	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C636	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C637	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C638	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C639	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C640	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C641	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C642	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C643	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C644	1-126-157-11	ELECT	10uF	20%	16V
C646	1-124-234-00	ELECT	22uF	20%	16V
C647	1-124-589-11	ELECT	47uF	20%	16V
C648	1-124-234-00	ELECT	22uF	20%	16V
C649	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C653	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C654	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C655	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C656	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN601	1-784-751-11	CONNECTOR, FFC 29P			
CN602	1-784-774-11	CONNECTOR, FFC 13P			

Ref. No.	Part No.	Description			Remarks
CN603	1-784-778-11	CONNECTOR, FFC 17P			
* CN604	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN605	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN608	1-818-282-11	PIN, CONNECTOR 3P			
		< DIODE >			
D603	8-719-988-61	DIODE 1SS355TE-17			
D604	8-719-988-61	DIODE 1SS355TE-17			
D605	8-719-988-61	DIODE 1SS355TE-17			
D607	8-719-988-61	DIODE 1SS355TE-17			
D608	8-719-988-61	DIODE 1SS355TE-17			
D609	8-719-988-61	DIODE 1SS355TE-17			
D610	8-719-083-59	DIODE UDZSTE-174.3B			
D611	8-719-988-61	DIODE 1SS355TE-17			
D613	8-719-988-61	DIODE 1SS355TE-17			
D614	8-719-988-61	DIODE 1SS355TE-17			
D615	8-719-988-61	DIODE 1SS355TE-17			
D616	8-719-988-61	DIODE 1SS355TE-17			
D621	8-719-988-61	DIODE 1SS355TE-17			
D623	8-719-988-61	DIODE 1SS355TE-17			
D626	8-719-988-61	DIODE 1SS355TE-17			
D630	8-719-988-61	DIODE 1SS355TE-17			
D631	8-719-978-33	DIODE UDZSTE-176.8B			
D632	8-719-083-57	DIODE UDZSTE-173.6B			
D633	8-719-988-61	DIODE 1SS355TE-17			
		< INDICATOR TUBE >			
FL601	1-518-976-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
☆ IC601	6-804-130-01	IC LC876996A-52S4-E			
☆ IC601	6-804-440-01	IC LC876996A-53H2-E			
☆ IC601	6-805-469-01	IC LC876A96A-55D8-E			
IC602	6-704-046-01	IC BU2099FV			
IC603	6-704-045-01	IC MM1574ANLE			
IC604	8-759-533-04	IC M62703ML-E1			
		< JUMPER RESISTOR >			
JR607	1-216-864-11	METAL CHIP	0	5%	1/10W
JR608	1-216-864-11	METAL CHIP	0	5%	1/10W
JR609	1-216-864-11	METAL CHIP	0	5%	1/10W
JR611	1-216-864-11	METAL CHIP	0	5%	1/10W
JR612	1-216-864-11	METAL CHIP	0	5%	1/10W
JR614	1-216-296-11	SHORT CHIP	0		
JR617	1-216-864-11	METAL CHIP	0	5%	1/10W
JR621	1-216-864-11	METAL CHIP	0	5%	1/10W
JR622	1-216-864-11	METAL CHIP	0	5%	1/10W
JR623	1-216-864-11	METAL CHIP	0	5%	1/10W
		< DIODE >			
LED601	6-500-809-01	DIODE SELU5223C-STP15 (**I**/⏻)			
		< TRANSISTOR >			
Q601	8-729-116-57	TRANSISTOR	2SB1068TP-K		
Q602	8-729-140-04	TRANSISTOR	2SB1116A-TP-LK		
Q603	8-729-140-04	TRANSISTOR	2SB1116A-TP-LK		
Q604	8-729-119-76	TRANSISTOR	2SA1175TP-HFE		

☆ When IC601 is exchanged for LC876A type, remove R789.
Refer to Attention when exchanging IC601 (Page 37).

Ref. No.	Part No.	Description			Remarks
Q605	8-729-120-28	TRANSISTOR	2SC3052F-T1-LF		
Q610	8-729-027-55	TRANSISTOR	DTC143EKA-T146		
Q611	8-729-027-55	TRANSISTOR	DTC143EKA-T146		
Q612	8-729-027-55	TRANSISTOR	DTC143EKA-T146		
Q613	8-729-027-55	TRANSISTOR	DTC143EKA-T146		
Q614	8-729-027-55	TRANSISTOR	DTC143EKA-T146		
Q615	8-729-027-55	TRANSISTOR	DTC143EKA-T146		
Q616	8-729-027-55	TRANSISTOR	DTC143EKA-T146		
		< RESISTOR >			
R601	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R602	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R603	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R604	1-216-841-11	METAL CHIP	47K	5%	1/10W
R605	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R606	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R607	1-216-841-11	METAL CHIP	47K	5%	1/10W
R608	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R609	1-216-837-11	METAL CHIP	22K	5%	1/10W
R610	1-216-833-11	METAL CHIP	10K	5%	1/10W
R611	1-216-837-11	METAL CHIP	22K	5%	1/10W
R612	1-216-833-11	METAL CHIP	10K	5%	1/10W
R613	1-216-837-11	METAL CHIP	22K	5%	1/10W
R614	1-216-837-11	METAL CHIP	22K	5%	1/10W
R615	1-216-837-11	METAL CHIP	22K	5%	1/10W
R616	1-216-833-11	METAL CHIP	10K	5%	1/10W
R617	1-216-837-11	METAL CHIP	22K	5%	1/10W
R618	1-216-833-11	METAL CHIP	10K	5%	1/10W
R619	1-216-837-11	METAL CHIP	22K	5%	1/10W
R620	1-216-837-11	METAL CHIP	22K	5%	1/10W
R621	1-216-833-11	METAL CHIP	10K	5%	1/10W
R622	1-216-049-11	RES-CHIP	1K	5%	1/10W
R623	1-216-833-11	METAL CHIP	10K	5%	1/10W
R624	1-216-049-11	RES-CHIP	1K	5%	1/10W
R625	1-216-833-11	METAL CHIP	10K	5%	1/10W
R626	1-216-049-11	RES-CHIP	1K	5%	1/10W
R627	1-216-833-11	METAL CHIP	10K	5%	1/10W
R628	1-216-833-11	METAL CHIP	10K	5%	1/10W
R629	1-216-150-91	RES-CHIP	10	5%	1/8W
R632	1-216-809-11	METAL CHIP	100	5%	1/10W
R633	1-216-809-11	METAL CHIP	100	5%	1/10W
R634	1-216-809-11	METAL CHIP	100	5%	1/10W
R635	1-216-809-11	METAL CHIP	100	5%	1/10W
R636	1-216-833-11	METAL CHIP	10K	5%	1/10W
R637	1-216-833-11	METAL CHIP	10K	5%	1/10W
R638	1-216-809-11	METAL CHIP	100	5%	1/10W
R639	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R640	1-216-834-11	METAL CHIP	12K	5%	1/10W
R641	1-216-849-11	METAL CHIP	220K	5%	1/10W
R642	1-216-817-11	METAL CHIP	470	5%	1/10W
R643	1-216-819-11	METAL CHIP	680	5%	1/10W
R644	1-216-821-11	METAL CHIP	1K	5%	1/10W
R645	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R646	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R647	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R648	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R649	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R650	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R651	1-216-833-11	METAL CHIP	10K	5%	1/10W
R652	1-216-835-11	METAL CHIP	15K	5%	1/10W
R653	1-216-817-11	METAL CHIP	470	5%	1/10W
R654	1-216-819-11	METAL CHIP	680	5%	1/10W
R655	1-216-821-11	METAL CHIP	1K	5%	1/10W
R656	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R657	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R658	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R659	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R660	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R661	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R662	1-216-833-11	METAL CHIP	10K	5%	1/10W
R663	1-216-837-11	METAL CHIP	22K	5%	1/10W
R664	1-216-817-11	METAL CHIP	470	5%	1/10W
R665	1-216-819-11	METAL CHIP	680	5%	1/10W
R666	1-216-821-11	METAL CHIP	1K	5%	1/10W
R667	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R668	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R669	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R670	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R671	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R672	1-216-833-11	METAL CHIP	10K	5%	1/10W
R674	1-216-835-11	METAL CHIP	15K	5%	1/10W
R675	1-216-835-11	METAL CHIP	15K	5%	1/10W
R676	1-216-835-11	METAL CHIP	15K	5%	1/10W
R677	1-216-864-11	METAL CHIP	0	5%	1/10W
R678	1-216-845-11	METAL CHIP	100K	5%	1/10W
R679	1-216-174-00	RES-CHIP	100	5%	1/8W
R680	1-216-837-11	METAL CHIP	22K	5%	1/10W
R681	1-216-849-11	METAL CHIP	220K	5%	1/10W
R682	1-216-833-11	METAL CHIP	10K	5%	1/10W
R683	1-216-849-11	METAL CHIP	220K	5%	1/10W
R684	1-216-821-11	METAL CHIP	1K	5%	1/10W
R685	1-216-841-11	METAL CHIP	47K	5%	1/10W
R686	1-216-841-11	METAL CHIP	47K	5%	1/10W
R687	1-216-833-11	METAL CHIP	10K	5%	1/10W
R688	1-216-817-11	METAL CHIP	470	5%	1/10W
R689	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R690	1-216-809-11	METAL CHIP	100	5%	1/10W
R691	1-216-809-11	METAL CHIP	100	5%	1/10W
R692	1-216-809-11	METAL CHIP	100	5%	1/10W
R693	1-216-809-11	METAL CHIP	100	5%	1/10W
R694	1-216-809-11	METAL CHIP	100	5%	1/10W
R695	1-216-809-11	METAL CHIP	100	5%	1/10W
R696	1-216-809-11	METAL CHIP	100	5%	1/10W
R697	1-216-809-11	METAL CHIP	100	5%	1/10W
R698	1-216-182-00	RES-CHIP	220	5%	1/8W
R700	1-216-182-00	RES-CHIP	220	5%	1/8W
R702	1-216-182-00	RES-CHIP	220	5%	1/8W
R704	1-216-182-00	RES-CHIP	220	5%	1/8W
R706	1-216-182-00	RES-CHIP	220	5%	1/8W
R708	1-216-182-00	RES-CHIP	220	5%	1/8W
R710	1-216-833-11	METAL CHIP	10K	5%	1/10W
R711	1-216-833-11	METAL CHIP	10K	5%	1/10W
R712	1-216-797-11	METAL CHIP	10	5%	1/10W
R713	1-216-797-11	METAL CHIP	10	5%	1/10W
R714	1-216-809-11	METAL CHIP	100	5%	1/10W

PANEL

Ref. No.	Part No.	Description			Remarks
R715	1-216-805-11	METAL CHIP	47	5%	1/10W
R716	1-216-837-11	METAL CHIP	22K	5%	1/10W
R717	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R718	1-216-837-11	METAL CHIP	22K	5%	1/10W
R719	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R720	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R721	1-216-833-11	METAL CHIP	10K	5%	1/10W
R722	1-216-835-11	METAL CHIP	15K	5%	1/10W
R723	1-216-809-11	METAL CHIP	100	5%	1/10W
R725	1-216-809-11	METAL CHIP	100	5%	1/10W
R727	1-220-397-11	METAL CHIP	4.7M	5%	1/10W
R728	1-220-397-11	METAL CHIP	4.7M	5%	1/10W
R729	1-216-809-11	METAL CHIP	100	5%	1/10W
R730	1-216-809-11	METAL CHIP	100	5%	1/10W
R731	1-216-809-11	METAL CHIP	100	5%	1/10W
R732	1-216-853-11	METAL CHIP	470K	5%	1/10W
R733	1-216-809-11	METAL CHIP	100	5%	1/10W
R734	1-216-821-11	METAL CHIP	1K	5%	1/10W
R735	1-216-821-11	METAL CHIP	1K	5%	1/10W
R736	1-216-821-11	METAL CHIP	1K	5%	1/10W
R737	1-216-845-11	METAL CHIP	100K	5%	1/10W
R738	1-216-845-11	METAL CHIP	100K	5%	1/10W
R739	1-216-845-11	METAL CHIP	100K	5%	1/10W
R740	1-216-845-11	METAL CHIP	100K	5%	1/10W
R741	1-216-845-11	METAL CHIP	100K	5%	1/10W
R742	1-216-845-11	METAL CHIP	100K	5%	1/10W
R743	1-216-845-11	METAL CHIP	100K	5%	1/10W
R744	1-216-845-11	METAL CHIP	100K	5%	1/10W
R745	1-216-845-11	METAL CHIP	100K	5%	1/10W
R746	1-216-845-11	METAL CHIP	100K	5%	1/10W
R747	1-216-845-11	METAL CHIP	100K	5%	1/10W
R748	1-216-845-11	METAL CHIP	100K	5%	1/10W
R749	1-216-845-11	METAL CHIP	100K	5%	1/10W
R750	1-216-845-11	METAL CHIP	100K	5%	1/10W
R751	1-216-845-11	METAL CHIP	100K	5%	1/10W
R752	1-216-845-11	METAL CHIP	100K	5%	1/10W
R753	1-216-845-11	METAL CHIP	100K	5%	1/10W
R754	1-216-845-11	METAL CHIP	100K	5%	1/10W
R755	1-216-845-11	METAL CHIP	100K	5%	1/10W
R756	1-216-845-11	METAL CHIP	100K	5%	1/10W
R757	1-216-845-11	METAL CHIP	100K	5%	1/10W
R758	1-216-845-11	METAL CHIP	100K	5%	1/10W
R759	1-216-845-11	METAL CHIP	100K	5%	1/10W
R760	1-216-845-11	METAL CHIP	100K	5%	1/10W
R761	1-216-845-11	METAL CHIP	100K	5%	1/10W
R762	1-216-845-11	METAL CHIP	100K	5%	1/10W
R763	1-216-845-11	METAL CHIP	100K	5%	1/10W
R764	1-216-845-11	METAL CHIP	100K	5%	1/10W
R765	1-216-845-11	METAL CHIP	100K	5%	1/10W
R766	1-216-845-11	METAL CHIP	100K	5%	1/10W
R767	1-216-845-11	METAL CHIP	100K	5%	1/10W
R768	1-216-845-11	METAL CHIP	100K	5%	1/10W
R769	1-216-845-11	METAL CHIP	100K	5%	1/10W
R770	1-216-845-11	METAL CHIP	100K	5%	1/10W
R771	1-216-841-11	METAL CHIP	47K	5%	1/10W
R772	1-216-821-11	METAL CHIP	1K	5%	1/10W
R773	1-216-809-11	METAL CHIP	100	5%	1/10W
R774	1-216-809-11	METAL CHIP	100	5%	1/10W
R775	1-216-809-11	METAL CHIP	100	5%	1/10W
R776	1-216-809-11	METAL CHIP	100	5%	1/10W
R777	1-216-809-11	METAL CHIP	100	5%	1/10W
R778	1-216-809-11	METAL CHIP	100	5%	1/10W
R779	1-216-809-11	METAL CHIP	100	5%	1/10W
R780	1-216-817-11	METAL CHIP	470	5%	1/10W
R781	1-216-809-11	METAL CHIP	100	5%	1/10W
R782	1-216-809-11	METAL CHIP	100	5%	1/10W
R783	1-216-809-11	METAL CHIP	100	5%	1/10W
R784	1-216-809-11	METAL CHIP	100	5%	1/10W
R785	1-216-809-11	METAL CHIP	100	5%	1/10W
R786	1-216-833-11	METAL CHIP	10K	5%	1/10W
R787	1-216-809-11	METAL CHIP	100	5%	1/10W
R788	1-216-809-11	METAL CHIP	100	5%	1/10W
☆ R789	1-216-841-11	METAL CHIP	47K	5%	1/10W
					(IC601 LC876996A TYPE)
R790	1-216-821-11	METAL CHIP	1K	5%	1/10W
R791	1-216-809-11	METAL CHIP	100	5%	1/10W
R792	1-216-809-11	METAL CHIP	100	5%	1/10W
R793	1-216-809-11	METAL CHIP	100	5%	1/10W
R794	1-216-809-11	METAL CHIP	100	5%	1/10W
R795	1-216-809-11	METAL CHIP	100	5%	1/10W
R796	1-216-809-11	METAL CHIP	100	5%	1/10W
R797	1-216-821-11	METAL CHIP	1K	5%	1/10W
R798	1-216-821-11	METAL CHIP	1K	5%	1/10W
R799	1-216-821-11	METAL CHIP	1K	5%	1/10W
R854	1-216-813-11	METAL CHIP	220	5%	1/10W
R863	1-216-174-00	RES-CHIP	100	5%	1/8W

< SWITCH >

S601	1-762-875-21	SWITCH, KEYBOARD (I/⏻)
S602	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)
S603	1-762-875-21	SWITCH, KEYBOARD (EQ BAND)
S604	1-762-875-21	SWITCH, KEYBOARD (DISC 1)
S605	1-762-875-21	SWITCH, KEYBOARD (DISC 2)
S606	1-762-875-21	SWITCH, KEYBOARD (DISC 3)
S607	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)
S608	1-762-875-21	SWITCH, KEYBOARD (⏏)
S610	1-762-875-21	SWITCH, KEYBOARD (P FILE)
S611	1-762-875-21	SWITCH, KEYBOARD (PRESET EQ)
S612	1-762-875-21	SWITCH, KEYBOARD (ENTER)
S621	1-762-875-21	SWITCH, KEYBOARD (CD)
S622	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)
S623	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)
S624	1-762-875-21	SWITCH, KEYBOARD (GAME)
S626	1-762-875-21	SWITCH, KEYBOARD (ILLUMINATION)
S627	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE/TUNING MODE)
S628	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)
S629	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)
S630	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)
S641	1-762-875-21	SWITCH, KEYBOARD (GROOVE)
S642	1-762-875-21	SWITCH, KEYBOARD (SURROUND)
S643	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)
S644	1-762-875-21	SWITCH, KEYBOARD (TUNING +)
S645	1-762-875-21	SWITCH, KEYBOARD (▷)
S646	1-762-875-21	SWITCH, KEYBOARD (▶▶ ALBUM +)
S647	1-762-875-21	SWITCH, KEYBOARD (◀◀ ALBUM -)

☆ When IC601 is exchanged for LC876A type, remove R789.
Refer to Attention when exchanging IC601 (Page 37).

PANEL **REM** **SENSOR** **SUB-TRANS** **SUB-WOOFER**

Ref. No.	Part No.	Description	Remarks
S648	1-762-875-21	SWITCH, KEYBOARD (▮▮)	
S649	1-762-875-21	SWITCH, KEYBOARD (■)	
S650	1-762-875-21	SWITCH, KEYBOARD (TUNING -)	
		< VIBRATOR >	
X601	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	
X602	1-795-004-21	VIBRATOR, CERAMIC (10MHz)	
**********			
		REM BOARD	
		**********	
		< CONNECTOR >	
CN610	1-816-423-11	SOCKET, CONNECTOR 3P	
		< IC >	
IC610	6-600-174-01	IC RPM7240-H4 (R)	
		< JUMPER RESISTOR >	
JR624	1-216-296-11	SHORT CHIP 0	
**********			
	1-687-132-12	SENSOR BOARD	
		**********	
		< CONNECTOR >	
CN731	1-785-329-21	PIN, CONNECTOR (LIGHT ANGLE)3P	
		< IC >	
IC731	6-600-022-01	IC RPI-576	
**********			
		SUB-TRANS BOARD	
		**********	
		< CONNECTOR >	
CN901	1-564-321-00	PIN, CONNECTOR(3.96mm PITCH)2P	
		< DIODE >	
D901	8-719-991-33	DIODE 1SS133T-77	
D902	6-500-522-21	DIODE 10EDB40-TB3	
D903	6-500-522-21	DIODE 10EDB40-TB3	
D904	6-500-522-21	DIODE 10EDB40-TB3	
D905	6-500-522-21	DIODE 10EDB40-TB3	
		< RELAY >	
⚠RY901	1-755-276-11	RELAY, POWER	
**********			
		SUB-WOOFER BOARD	
		**********	
		< CAPACITOR >	

Ref. No.	Part No.	Description			Remarks
C502	1-162-286-21	CERAMIC	220PF	10.00%	50V
C503	1-162-600-11	CERAMIC	0.0047uF	10.00%	16V
C504	1-104-662-91	ELECT	22uF	20.00%	25V
C505	1-162-199-31	CERAMIC	10PF	5%	50V
C506	1-104-665-11	ELECT	100uF	20.00%	25V
C507	1-126-967-11	ELECT	47uF	20.00%	50V
C508	1-162-286-21	CERAMIC	220PF	10.00%	50V
C509	1-128-563-11	ELECT	100uF	20.00%	100V
C510	1-128-582-11	ELECT	10uF	20.00%	100V
C511	1-128-582-11	ELECT	10uF	20.00%	100V
C512	1-136-497-81	FILM	0.1uF	5.00%	50V
C513	1-136-497-81	FILM	0.1uF	5.00%	50V
C514	1-126-948-11	ELECT	100uF	20.00%	35V
C515	1-126-963-11	ELECT	4.7uF	20.00%	50V
C516	1-126-964-11	ELECT	10uF	20.00%	50V
C517	1-126-964-11	ELECT	10uF	20.00%	50V
		< CONNECTOR >			
* CN501	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			
* CN502	1-564-510-11	PLUG, CONNECTOR 7P			
* CN503	1-564-517-11	PLUG, CONNECTOR 2P (CONTROL)			
		< DIODE >			
D501	8-719-110-31	DIODE MTZJ-T-77-12B			
D502	8-719-991-33	DIODE 1SS133T-77			
D503	8-719-991-33	DIODE 1SS133T-77			
D504	8-719-991-33	DIODE 1SS133T-77			
D505	8-719-991-33	DIODE 1SS133T-77			
D506	8-719-109-97	DIODE MTZJ-T-77-6.8B			
D507	8-719-991-33	DIODE 1SS133T-77			
		< IC >			
IC501	6-600-091-01	IC STK404-130S			
		< JACK >			
JK501	1-774-785-11	JACK, PIN 1P (SUB WOOFER OUT)			
		< TRANSISTOR >			
Q501	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA		
Q502	8-729-119-76	TRANSISTOR	2SA1175TP-E		
Q503	8-729-119-79	TRANSISTOR	2SC2785TP-FEK		
Q505	8-729-119-79	TRANSISTOR	2SC2785TP-FEK		
Q506	8-729-119-79	TRANSISTOR	2SC2785TP-FEK		
Q507	8-729-119-79	TRANSISTOR	2SC2785TP-FEK		
		< RESISTOR >			
R501	1-249-437-11	CARBON	47K	5%	1/4W
R502	1-249-437-11	CARBON	47K	5%	1/4W
R503	1-249-417-11	CARBON	1K	5%	1/4W F
R504	1-249-437-11	CARBON	47K	5%	1/4W
R505	1-260-107-11	CARBON	4.7K	5%	1/2W
⚠R506	1-217-831-11	FUSIBLE	1	5%	1/4W
R507	1-260-107-11	CARBON	4.7K	5%	1/2W
R508	1-260-107-11	CARBON	4.7K	5%	1/2W
⚠R509	1-212-881-11	FUSIBLE	100	5%	1/4W
⚠R510	1-245-233-11	METAL	0.22	10%	5W
⚠R511	1-245-233-11	METAL	0.22	10%	5W
R512	1-260-076-11	CARBON	10	5%	1/2W
R513	1-249-417-11	CARBON	1K	5%	1/4W F

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SUB-WOOFER | SW | TRANS | VIDEO OUT

Ref. No.	Part No.	Description			Remarks
R514	1-249-433-11	CARBON	22K	5%	1/4W
R515	1-249-437-11	CARBON	47K	5%	1/4W
R516	1-260-087-11	CARBON	100	5%	1/2W
R517	1-249-429-11	CARBON	10K	5%	1/4W
R518	1-249-421-11	CARBON	2.2K	5%	1/4W F
R519	1-249-421-11	CARBON	2.2K	5%	1/4W F
R520	1-249-441-11	CARBON	100K	5%	1/4W
R524	1-249-437-11	CARBON	47K	5%	1/4W
R525	1-249-433-11	CARBON	22K	5%	1/4W
R526	1-249-428-11	CARBON	8.2K	5%	1/4W F
R527	1-247-903-00	CARBON	1M	5%	1/4W
R528	1-249-429-11	CARBON	10K	5%	1/4W
R529	1-249-421-11	CARBON	2.2K	5%	1/4W F
R530	1-249-433-11	CARBON	22K	5%	1/4W
R531	1-249-425-11	CARBON	4.7K	5%	1/4W F
R532	1-249-433-11	CARBON	22K	5%	1/4W
R533	1-249-433-11	CARBON	22K	5%	1/4W
		< RELAY >			
RY501	1-755-373-11	RELAY			
**********					
	1-687-669-12	SW BOARD			
		*********			
		< SWITCH >			
S751	1-786-514-11	SWITCH, LEVER (SLIDE) (LEVER)			
**********					
		TRANS BOARD			
		**********			
		< CAPACITOR >			
C906	1-164-159-11	CERAMIC	0.1uF		50V
C908	1-128-553-11	ELECT	220uF	20.00%	63V
C909	1-126-964-11	ELECT	10uF	20.00%	50V
C910	1-126-968-11	ELECT	100uF	20.00%	50V
C911	1-126-942-61	ELECT	1000uF	20.00%	25V
C920	1-131-679-31	CAP, METALIZED FILM	0.01uF	5%	50V
C921	1-131-679-31	CAP, METALIZED FILM	0.01uF	5%	50V
C922	1-131-679-31	CAP, METALIZED FILM	0.01uF	5%	50V
C923	1-131-679-31	CAP, METALIZED FILM	0.01uF	5%	50V
C924	1-131-692-11	CAP, METALIZED FILM	0.1uF	5%	50V
C925	1-131-692-11	CAP, METALIZED FILM	0.1uF	5%	50V
C926	1-164-159-21	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN904	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
CN905	1-564-506-11	PLUG, CONNECTOR 3P			
* CN906	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CN907	1-764-333-11	PLUG, CONNECTOR 10P			
		< DIODE >			
D906	8-719-110-69	DIODE MTZJ-T-77-27D			
D908	6-500-522-21	DIODE 10EDB40-TB3			
		< TRANSISTOR >			
Q902	8-729-048-52	TRANSISTOR 2SA1932(TP)			

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
⚠R902	1-219-237-11	SOLID	3.3M	20%	1/2W
R903	1-249-430-11	CARBON	12K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W F
⚠R908	1-217-831-11	FUSIBLE	1	5%	1/4W
**********					
		VIDEO OUT BOARD			
		**********			
		< CONNECTOR >			
* CN805	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		< JACK >			
J803	1-774-227-11	JACK, PIN 1P (VIDEO OUT)			
**********					
		MISCELLANEOUS			
		**********			
7	1-763-117-13	FAN, DC			
8	1-769-940-11	WIRE (FLAT TYPE) (11 CORE)			
9	1-693-631-12	TUNER (FM/AM)			
10	1-400-285-11	F-BEAD, E2515 MRT			
64	1-769-975-11	WIRE (FLAT TYPE) (13 CORE)			
65	1-773-048-11	WIRE (FLAT TYPE) (17 CORE)			
69	1-796-485-51	DECK, MECHANICAL (CWM43FF-05)			
76	1-773-282-11	WIRE (FLAT TYPE)(29 CORE)			
⚠103	1-783-531-11	CORD, POWER			
152	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)			
226	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)			
227	1-775-251-11	WIRE (FLAT TYPE) (27 CORE)			
⚠229	8-820-244-01	OPTICAL PICK-UP KSM-215DCP/C2NP			
230	1-471-035-11	MAGNET ASSY			
233	1-469-854-11	CORE, FERRITE			
⚠F904	1-576-537-11	FUSE, GLASS TUBE (DIA.5) (T8.0AL/125V)			
⚠F905	1-576-537-11	FUSE, GLASS TUBE (DIA.5) (T8.0AL/125V)			
⚠F906	1-533-451-11	FUSE, GLASS TUBE (DIA. 5) (T3.15AL/125V)			
⚠F907	1-533-451-11	FUSE, GLASS TUBE (DIA. 5) (T3.15AL/125V)			
M741	A-4723-963-A	MOTOR ASSY, TABLE			
M751	A-4736-655-A	MOTOR ASSY, LOADING			
⚠PT901	1-443-254-11	TRANSFORMER, POWER			
⚠PT902	X-4956-292-1	TRANS ASSY, SUB			
RE701	1-477-680-12	ENCODER, ROTARY			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

HCD-GX450

SONY

US Model
Canadian Model

SERVICE MANUAL

Ver. 1.1 2005.05

SUPPLEMENT-1

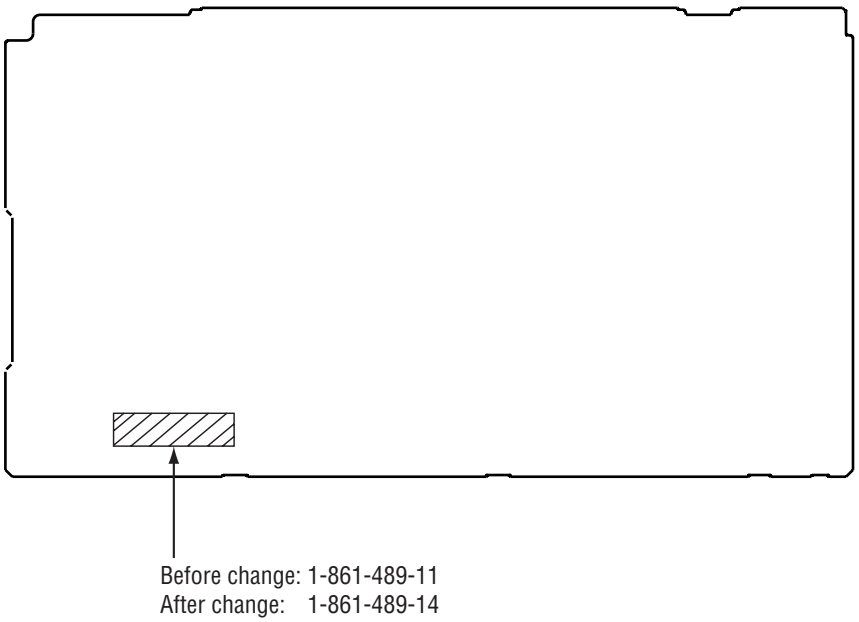
Subject: PANEL board changed to suffix-14 from suffix-11

9-877-534-81

Part number of printed wiring board changed to suffix-14 from suffix-11.
It has any difference between suffix-11 and suffix-14.
This supplement-1 describes the difference in the two boards.
Refer to original service manual (9-877-534-0□) for other information.

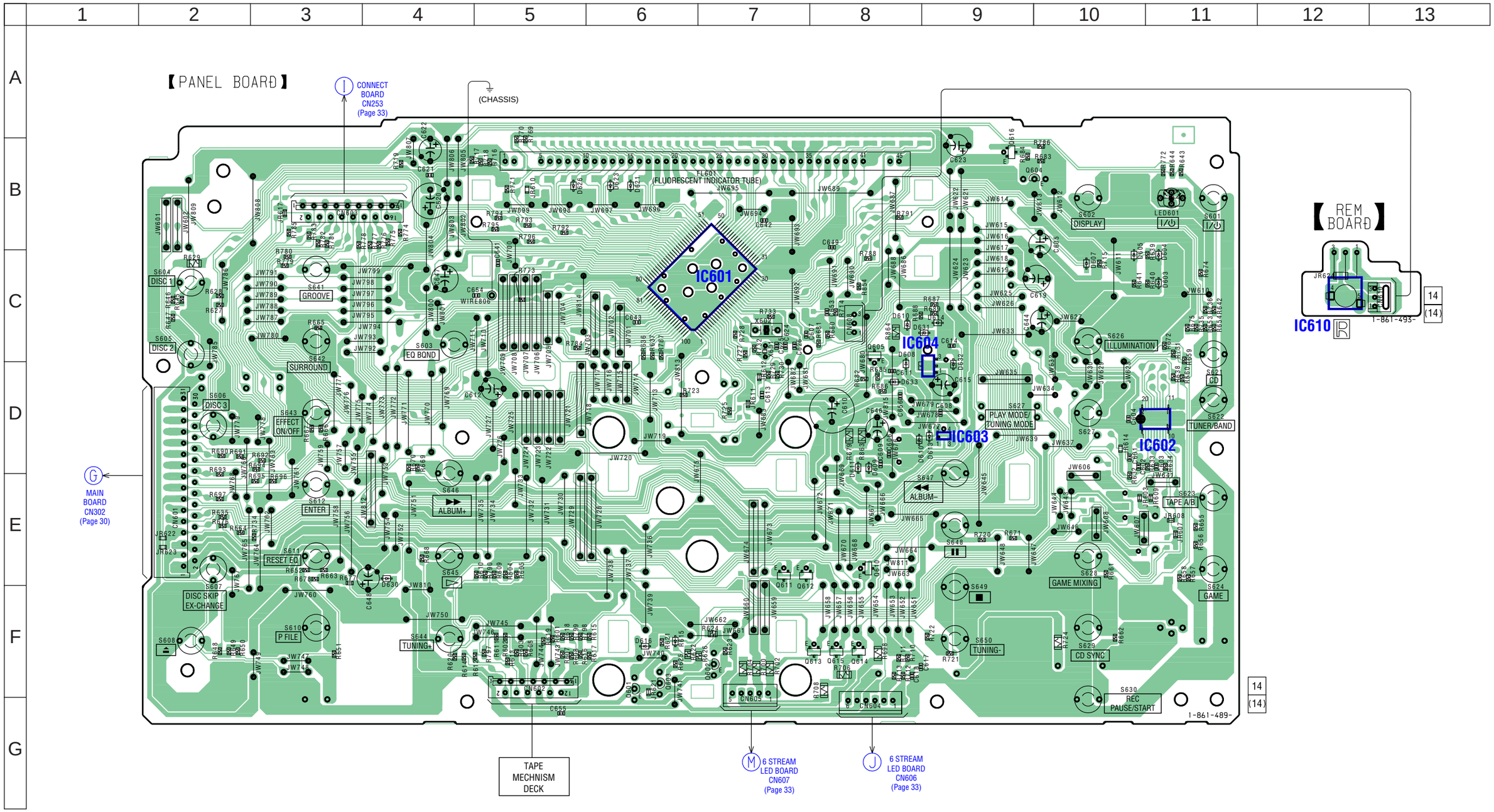
• **How to distinguish**
Location of parts number on changed printed wiring board

【PANEL BOARD】



Before change: 1-861-489-11
After change: 1-861-489-14

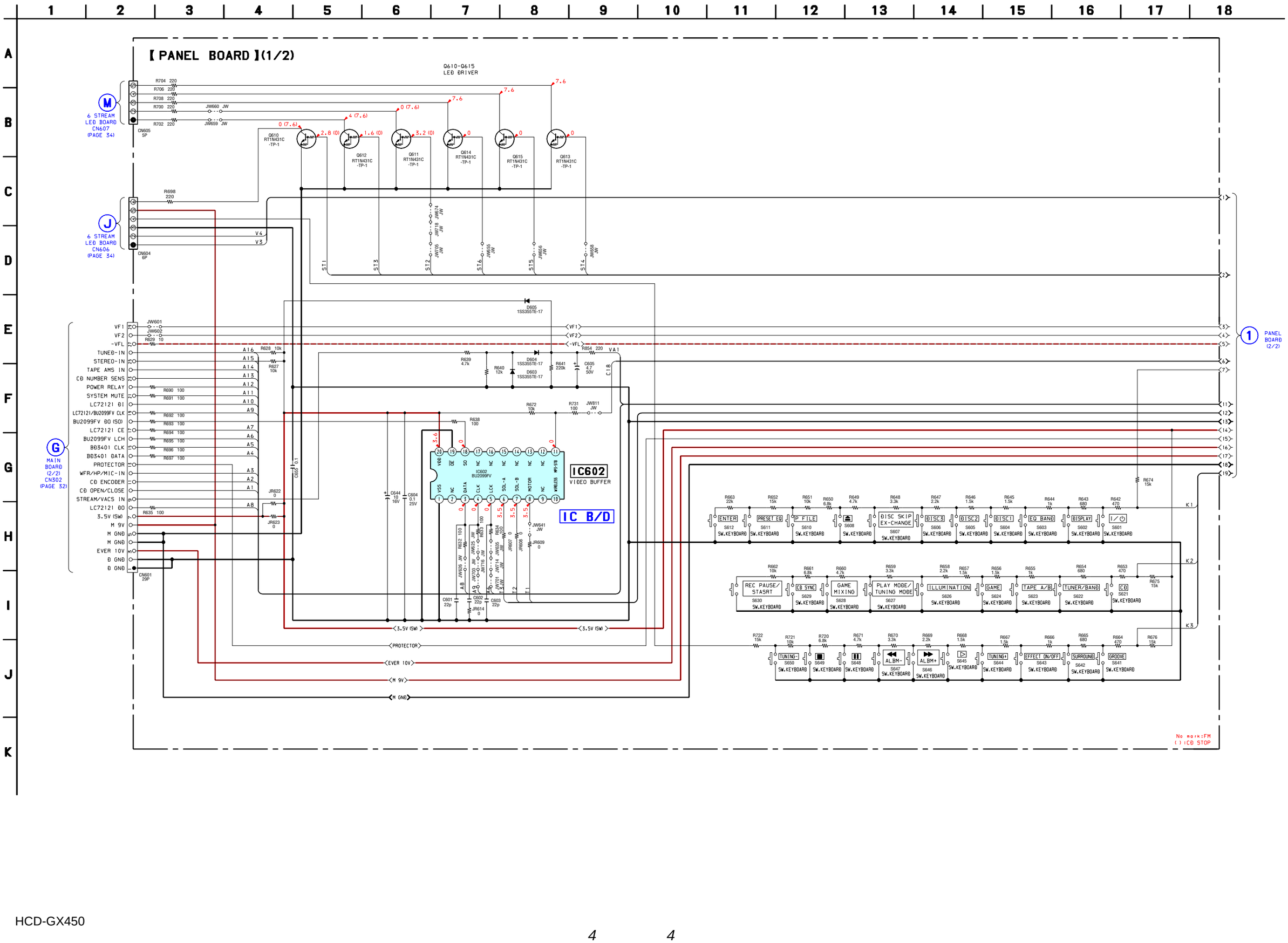
PRINTED WIRING BOARD – PANEL SECTION (SUFFIX-14) –



• **Semiconductor Location**

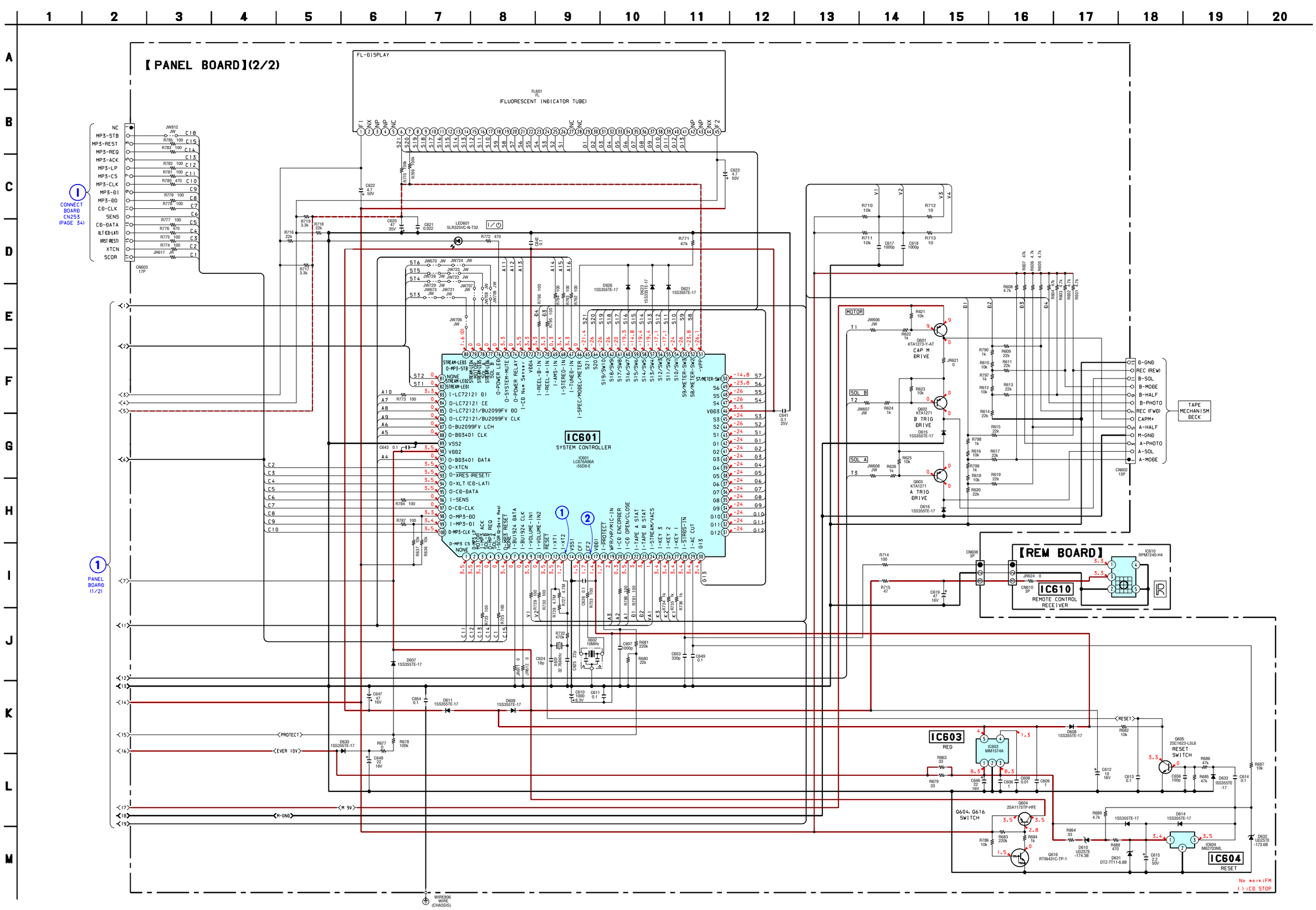
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D603	C-11	D626	B-5	Q602	F-7
D604	C-11	D630	E-4	Q603	F-6
D605	C-10	D631	C-8	Q604	B-9
D607	C-10	D632	C-9	Q605	C-8
D608	D-8			Q610	E-8
D609	D-8	IC601	C-7	Q611	E-7
D610	D-8	IC602	D-11	Q612	E-7
D611	D-8	IC603	D-9	Q613	F-7
D613	D-9	IC604	C-8	Q614	F-8
D614	C-9	IC610	C-12	Q615	F-8
D615	F-6			Q616	A-9
D616	F-6	LED601	B-11		
D621	B-6				
D623	B-6	Q601	F-6		

SCHEMATIC DIAGRAM – PANEL SECTION (1/2)(SUFFIX-14) –



SCHEMATIC DIAGRAM – PANEL SECTION (2/2)(SUFFIX-14) –

【PANEL BOARD】(2/2)



MEMO

ELECTRICAL PARTS LIST

PANEL

Ref. No.	Part No.	Description			Remark
		PANEL BOARD (SUFFIX-14)			
		**********			
		< CAPACITOR >			
C601	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C602	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C603	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C604	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C605	1-126-163-11	ELECT	4.7uF	20%	50V
C606	1-115-156-11	CERAMIC CHIP	1uF		10V
C607	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C608	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C609	1-115-156-11	CERAMIC CHIP	1uF		10V
C610	1-126-916-11	ELECT	1000uF	20.00%	6.3V
C611	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C612	1-126-157-11	ELECT	10uF	20%	16V
C613	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C614	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C615	1-124-257-00	ELECT	2.2uF	20%	50V
C617	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C619	1-124-589-11	ELECT	47uF	20%	16V
C620	1-119-772-91	ELECT	47uF	20.00%	35V
C621	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C622	1-126-163-11	ELECT	4.7uF	20%	50V
C623	1-126-163-11	ELECT	4.7uF	20%	50V
C624	1-162-918-11	CERAMIC CHIP	18PF	5.00%	50V
C625	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C626	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C641	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C642	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C643	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C644	1-126-157-11	ELECT	10uF	20%	16V
C646	1-124-234-00	ELECT	22uF	20%	16V
C647	1-124-589-11	ELECT	47uF	20%	16V
C648	1-124-234-00	ELECT	22uF	20%	16V
C649	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C653	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C654	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C655	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C656	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN601	1-784-751-11	CONNECTOR, FFC 29P			
CN602	1-784-774-11	CONNECTOR, FFC 13P			
CN603	1-784-778-11	CONNECTOR, FFC 17P			
* CN604	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN605	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN608	1-818-282-11	PIN, CONNECTOR 3P			
		< DIODE >			
D603	8-719-988-61	DIODE 1SS355TE-17			
D604	8-719-988-61	DIODE 1SS355TE-17			
D605	8-719-988-61	DIODE 1SS355TE-17			
D607	8-719-988-61	DIODE 1SS355TE-17			
D608	8-719-988-61	DIODE 1SS355TE-17			
D609	8-719-988-61	DIODE 1SS355TE-17			

Ref. No.	Part No.	Description			Remark
D610	8-719-083-59	DIODE UDZSTE-174.3B			
D611	8-719-988-61	DIODE 1SS355TE-17			
D613	8-719-988-61	DIODE 1SS355TE-17			
D614	8-719-988-61	DIODE 1SS355TE-17			
D615	8-719-988-61	DIODE 1SS355TE-17			
D616	8-719-988-61	DIODE 1SS355TE-17			
D621	8-719-988-61	DIODE 1SS355TE-17			
D623	8-719-988-61	DIODE 1SS355TE-17			
D626	8-719-988-61	DIODE 1SS355TE-17			
D630	8-719-988-61	DIODE 1SS355TE-17			
D631	8-719-978-33	DIODE DTZ-TT11-6.8B			
D632	8-719-083-57	DIODE UDZSTE-173.6B			
D633	8-719-988-61	DIODE 1SS355TE-17			
		< INDICATOR TUBE >			
FL601	1-518-976-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC601	6-805-469-01	IC LC876A96A-55D8-E			
IC602	6-704-046-01	IC BU2099FV			
IC603	6-704-045-01	IC MM1574ANLE			
IC604	8-759-533-04	IC M62703ML-E1			
		< JUMPER RESISTOR >			
JR607	1-216-864-11	METAL CHIP	0	5%	1/10W
JR608	1-216-864-11	METAL CHIP	0	5%	1/10W
JR609	1-216-864-11	METAL CHIP	0	5%	1/10W
JR611	1-216-864-11	METAL CHIP	0	5%	1/10W
JR612	1-216-864-11	METAL CHIP	0	5%	1/10W
JR614	1-216-296-11	SHORT CHIP	0		
JR617	1-216-864-11	METAL CHIP	0	5%	1/10W
JR621	1-216-864-11	METAL CHIP	0	5%	1/10W
JR622	1-216-864-11	METAL CHIP	0	5%	1/10W
JR623	1-216-864-11	METAL CHIP	0	5%	1/10W
		< DIODE >			
LED601	6-500-809-01	DIODE SELU5223C-STP15 (I/⏻)			
		< TRANSISTOR >			
Q601	8-729-116-57	TRANSISTOR	2SB1068TP-K		
Q602	8-729-140-04	TRANSISTOR	2SB1116A-TP-LK		
Q603	8-729-140-04	TRANSISTOR	2SB1116A-TP-LK		
Q604	8-729-119-76	TRANSISTOR	2SA1175TP-HFE		
Q605	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q610	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
Q611	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
Q612	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
Q613	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
Q614	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
Q615	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
Q616	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
		< RESISTOR >			
R601	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R602	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R603	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R604	1-216-841-11	METAL CHIP	47K	5%	1/10W

PANEL

Ref. No.	Part No.	Description			Remark
R605	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R606	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R607	1-216-841-11	METAL CHIP	47K	5%	1/10W
R608	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R609	1-216-837-11	METAL CHIP	22K	5%	1/10W
R610	1-216-833-11	METAL CHIP	10K	5%	1/10W
R611	1-216-837-11	METAL CHIP	22K	5%	1/10W
R612	1-216-833-11	METAL CHIP	10K	5%	1/10W
R613	1-216-837-11	METAL CHIP	22K	5%	1/10W
R614	1-216-837-11	METAL CHIP	22K	5%	1/10W
R615	1-216-837-11	METAL CHIP	22K	5%	1/10W
R616	1-216-833-11	METAL CHIP	10K	5%	1/10W
R617	1-216-837-11	METAL CHIP	22K	5%	1/10W
R618	1-216-833-11	METAL CHIP	10K	5%	1/10W
R619	1-216-837-11	METAL CHIP	22K	5%	1/10W
R620	1-216-837-11	METAL CHIP	22K	5%	1/10W
R621	1-216-833-11	METAL CHIP	10K	5%	1/10W
R622	1-216-049-11	RES-CHIP	1K	5%	1/10W
R623	1-216-833-11	METAL CHIP	10K	5%	1/10W
R624	1-216-049-11	RES-CHIP	1K	5%	1/10W
R625	1-216-833-11	METAL CHIP	10K	5%	1/10W
R626	1-216-049-11	RES-CHIP	1K	5%	1/10W
R627	1-216-833-11	METAL CHIP	10K	5%	1/10W
R628	1-216-833-11	METAL CHIP	10K	5%	1/10W
R629	1-216-150-91	RES-CHIP	10	5%	1/8W
R632	1-216-809-11	METAL CHIP	100	5%	1/10W
R633	1-216-809-11	METAL CHIP	100	5%	1/10W
R634	1-216-809-11	METAL CHIP	100	5%	1/10W
R635	1-216-809-11	METAL CHIP	100	5%	1/10W
R636	1-216-833-11	METAL CHIP	10K	5%	1/10W
R637	1-216-833-11	METAL CHIP	10K	5%	1/10W
R638	1-216-809-11	METAL CHIP	100	5%	1/10W
R639	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R640	1-216-834-11	METAL CHIP	12K	5%	1/10W
R641	1-216-849-11	METAL CHIP	220K	5%	1/10W
R642	1-216-817-11	METAL CHIP	470	5%	1/10W
R643	1-216-819-11	METAL CHIP	680	5%	1/10W
R644	1-216-821-11	METAL CHIP	1K	5%	1/10W
R645	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R646	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R647	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R648	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R649	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R650	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R651	1-216-833-11	METAL CHIP	10K	5%	1/10W
R652	1-216-835-11	METAL CHIP	15K	5%	1/10W
R653	1-216-817-11	METAL CHIP	470	5%	1/10W
R654	1-216-819-11	METAL CHIP	680	5%	1/10W
R655	1-216-821-11	METAL CHIP	1K	5%	1/10W
R656	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R657	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R658	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R659	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R660	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R661	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R662	1-216-833-11	METAL CHIP	10K	5%	1/10W
R663	1-216-837-11	METAL CHIP	22K	5%	1/10W
R664	1-216-817-11	METAL CHIP	470	5%	1/10W
R665	1-216-819-11	METAL CHIP	680	5%	1/10W
R666	1-216-821-11	METAL CHIP	1K	5%	1/10W
R667	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R668	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R669	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R670	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R671	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R672	1-216-833-11	METAL CHIP	10K	5%	1/10W
R674	1-216-835-11	METAL CHIP	15K	5%	1/10W
R675	1-216-835-11	METAL CHIP	15K	5%	1/10W
R676	1-216-835-11	METAL CHIP	15K	5%	1/10W
R677	1-216-864-11	METAL CHIP	0	5%	1/10W
R678	1-216-845-11	METAL CHIP	100K	5%	1/10W
R679	1-216-162-00	RES-CHIP	33	5%	1/8W
R680	1-216-837-11	METAL CHIP	22K	5%	1/10W
R681	1-216-849-11	METAL CHIP	220K	5%	1/10W
R682	1-216-833-11	METAL CHIP	10K	5%	1/10W
R683	1-216-849-11	METAL CHIP	220K	5%	1/10W
R684	1-216-821-11	METAL CHIP	1K	5%	1/10W
R685	1-216-841-11	METAL CHIP	47K	5%	1/10W
R686	1-216-841-11	METAL CHIP	47K	5%	1/10W
R687	1-216-833-11	METAL CHIP	10K	5%	1/10W
R688	1-216-817-11	METAL CHIP	470	5%	1/10W
R689	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R690	1-216-809-11	METAL CHIP	100	5%	1/10W
R691	1-216-809-11	METAL CHIP	100	5%	1/10W
R692	1-216-809-11	METAL CHIP	100	5%	1/10W
R693	1-216-809-11	METAL CHIP	100	5%	1/10W
R694	1-216-809-11	METAL CHIP	100	5%	1/10W
R695	1-216-809-11	METAL CHIP	100	5%	1/10W
R696	1-216-809-11	METAL CHIP	100	5%	1/10W
R697	1-216-809-11	METAL CHIP	100	5%	1/10W
R698	1-216-182-00	RES-CHIP	220	5%	1/8W
R700	1-216-182-00	RES-CHIP	220	5%	1/8W
R702	1-216-182-00	RES-CHIP	220	5%	1/8W
R704	1-216-182-00	RES-CHIP	220	5%	1/8W
R706	1-216-182-00	RES-CHIP	220	5%	1/8W
R708	1-216-182-00	RES-CHIP	220	5%	1/8W
R710	1-216-833-11	METAL CHIP	10K	5%	1/10W
R711	1-216-833-11	METAL CHIP	10K	5%	1/10W
R712	1-216-797-11	METAL CHIP	10	5%	1/10W
R713	1-216-797-11	METAL CHIP	10	5%	1/10W
R714	1-216-809-11	METAL CHIP	100	5%	1/10W
R715	1-216-805-11	METAL CHIP	47	5%	1/10W
R716	1-216-837-11	METAL CHIP	22K	5%	1/10W
R717	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R718	1-216-837-11	METAL CHIP	22K	5%	1/10W
R719	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R720	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R721	1-216-833-11	METAL CHIP	10K	5%	1/10W
R722	1-216-835-11	METAL CHIP	15K	5%	1/10W
R723	1-216-809-11	METAL CHIP	100	5%	1/10W
R725	1-216-809-11	METAL CHIP	100	5%	1/10W
R727	1-220-397-11	METAL CHIP	4.7M	5%	1/10W
R728	1-220-397-11	METAL CHIP	4.7M	5%	1/10W
R729	1-216-809-11	METAL CHIP	100	5%	1/10W
R730	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R731	1-216-809-11	METAL CHIP	100	5%	1/10W
R732	1-216-853-11	METAL CHIP	470K	5%	1/10W
R733	1-216-809-11	METAL CHIP	100	5%	1/10W
R734	1-216-821-11	METAL CHIP	1K	5%	1/10W
R735	1-216-821-11	METAL CHIP	1K	5%	1/10W
R736	1-216-821-11	METAL CHIP	1K	5%	1/10W
R769	1-216-845-11	METAL CHIP	100K	5%	1/10W
R770	1-216-845-11	METAL CHIP	100K	5%	1/10W
R771	1-216-841-11	METAL CHIP	47K	5%	1/10W
R772	1-216-821-11	METAL CHIP	1K	5%	1/10W
R773	1-216-809-11	METAL CHIP	100	5%	1/10W
R774	1-216-809-11	METAL CHIP	100	5%	1/10W
R775	1-216-809-11	METAL CHIP	100	5%	1/10W
R776	1-216-817-11	METAL CHIP	470	5%	1/10W
R777	1-216-809-11	METAL CHIP	100	5%	1/10W
R778	1-216-809-11	METAL CHIP	100	5%	1/10W
R779	1-216-809-11	METAL CHIP	100	5%	1/10W
R780	1-216-817-11	METAL CHIP	470	5%	1/10W
R781	1-216-809-11	METAL CHIP	100	5%	1/10W
R782	1-216-809-11	METAL CHIP	100	5%	1/10W
R783	1-216-809-11	METAL CHIP	100	5%	1/10W
R784	1-216-809-11	METAL CHIP	100	5%	1/10W
R785	1-216-809-11	METAL CHIP	100	5%	1/10W
R786	1-216-833-11	METAL CHIP	10K	5%	1/10W
R787	1-216-809-11	METAL CHIP	100	5%	1/10W
R788	1-216-809-11	METAL CHIP	100	5%	1/10W
R790	1-216-821-11	METAL CHIP	1K	5%	1/10W
R791	1-216-809-11	METAL CHIP	100	5%	1/10W
R792	1-216-809-11	METAL CHIP	100	5%	1/10W
R793	1-216-809-11	METAL CHIP	100	5%	1/10W
R794	1-216-809-11	METAL CHIP	100	5%	1/10W
R795	1-216-809-11	METAL CHIP	100	5%	1/10W
R796	1-216-809-11	METAL CHIP	100	5%	1/10W
R797	1-216-821-11	METAL CHIP	1K	5%	1/10W
R798	1-216-821-11	METAL CHIP	1K	5%	1/10W
R799	1-216-821-11	METAL CHIP	1K	5%	1/10W
R854	1-216-813-11	METAL CHIP	220	5%	1/10W
R863	1-216-162-00	RES-CHIP	33	5%	1/8W
R864	1-216-162-00	RES-CHIP	33	5%	1/8W

< SWITCH >

S601	1-762-875-21	SWITCH, KEYBOARD (I/⏻)
S602	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)
S603	1-762-875-21	SWITCH, KEYBOARD (EQ BAND)
S604	1-762-875-21	SWITCH, KEYBOARD (DISC 1)
S605	1-762-875-21	SWITCH, KEYBOARD (DISC 2)
S606	1-762-875-21	SWITCH, KEYBOARD (DISC 3)
S607	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)
S608	1-762-875-21	SWITCH, KEYBOARD (⏏)
S610	1-762-875-21	SWITCH, KEYBOARD (P FILE)
S611	1-762-875-21	SWITCH, KEYBOARD (PRESET EQ)
S612	1-762-875-21	SWITCH, KEYBOARD (ENTER)
S621	1-762-875-21	SWITCH, KEYBOARD (CD)
S622	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)
S623	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)
S624	1-762-875-21	SWITCH, KEYBOARD (GAME)
S626	1-762-875-21	SWITCH, KEYBOARD (ILLUMINATION)

Ref. No.	Part No.	Description	Remark
S627	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE/TUNING MODE)	
S628	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)	
S629	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)	
S630	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)	
S641	1-762-875-21	SWITCH, KEYBOARD (GROOVE)	
S642	1-762-875-21	SWITCH, KEYBOARD (SURROUND)	
S643	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)	
S644	1-762-875-21	SWITCH, KEYBOARD (TUNING +)	
S645	1-762-875-21	SWITCH, KEYBOARD (▷)	
S646	1-762-875-21	SWITCH, KEYBOARD (▶▶ ALBUM +)	
S647	1-762-875-21	SWITCH, KEYBOARD (◀◀ ALBUM –)	
S648	1-762-875-21	SWITCH, KEYBOARD (❚❚)	
S649	1-762-875-21	SWITCH, KEYBOARD (■)	
S650	1-762-875-21	SWITCH, KEYBOARD (TUNING –)	

< VIBRATOR >

X601	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	
X602	1-795-004-21	VIBRATOR, CERAMIC (10MHz)	

****

MEMO

HCD-GX450

SONY

US Model
Canadian Model

SERVICE MANUAL

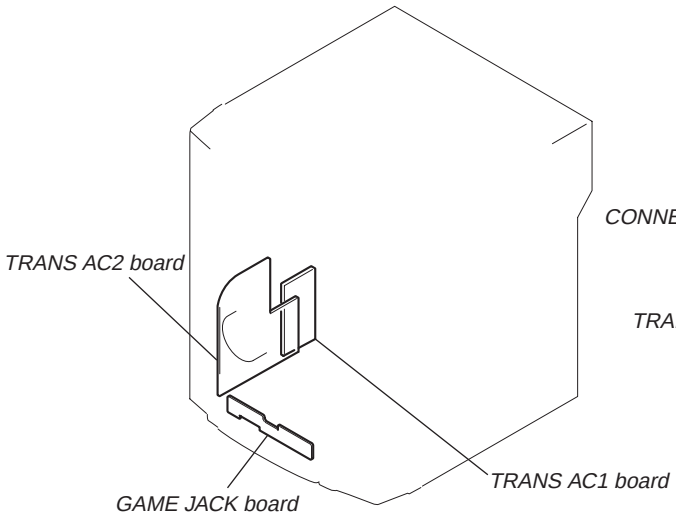
Ver. 1.2 2005.08

SUPPLEMENT-2

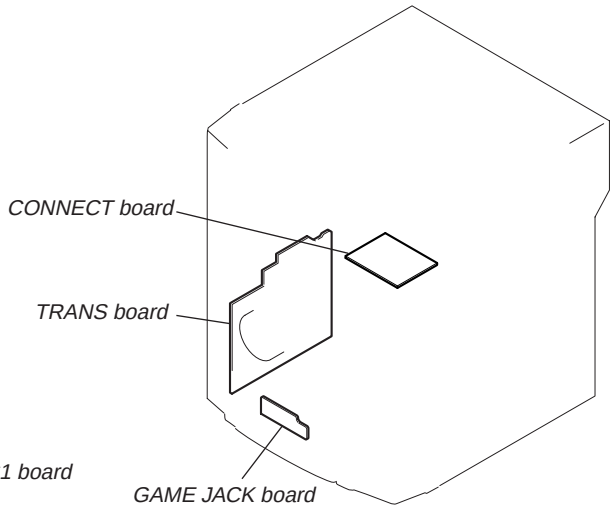
Subject: • Addition of ELECTRICAL ADJUSTMENTS
• Addition of new type models

Note: The new type model can be identified from the old type model from the location of the three printed circuit boards.

【 New type model 】



【 Old type model 】



9-877-534-82

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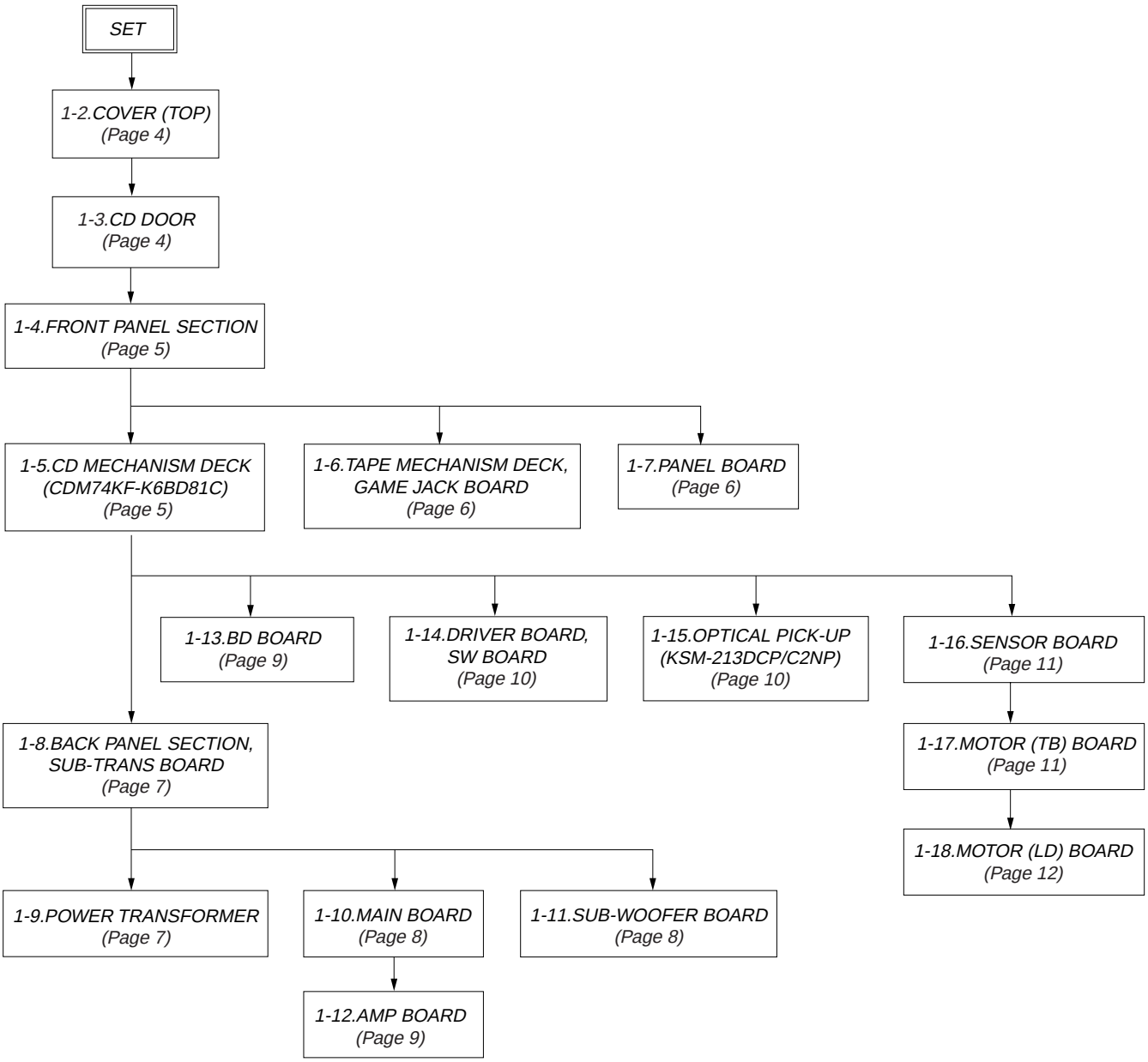
SECTION 1
DISASSEMBLY

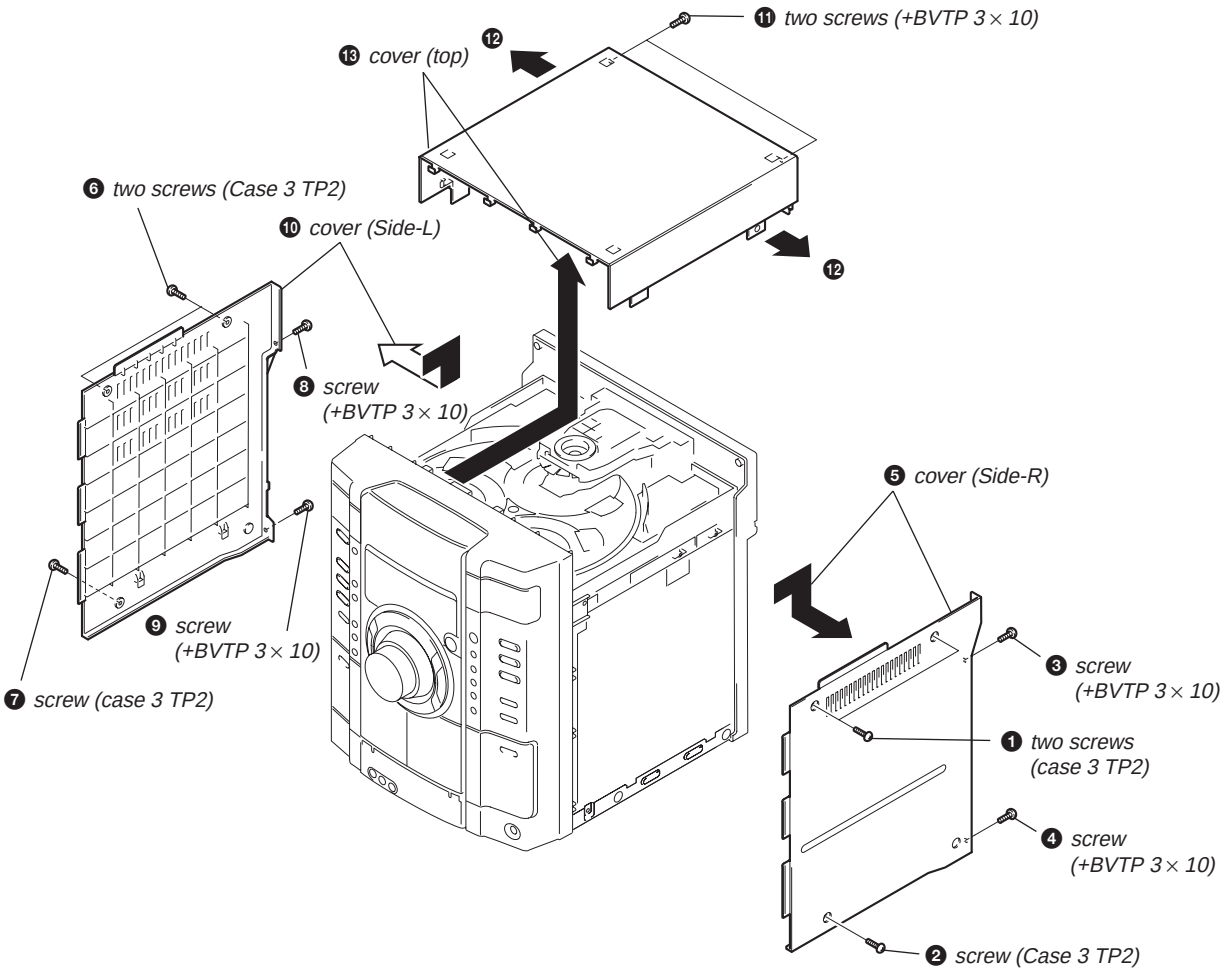
1-1. DISASSEMBLY FLOW

- This set can be disassembled in the order shown below.

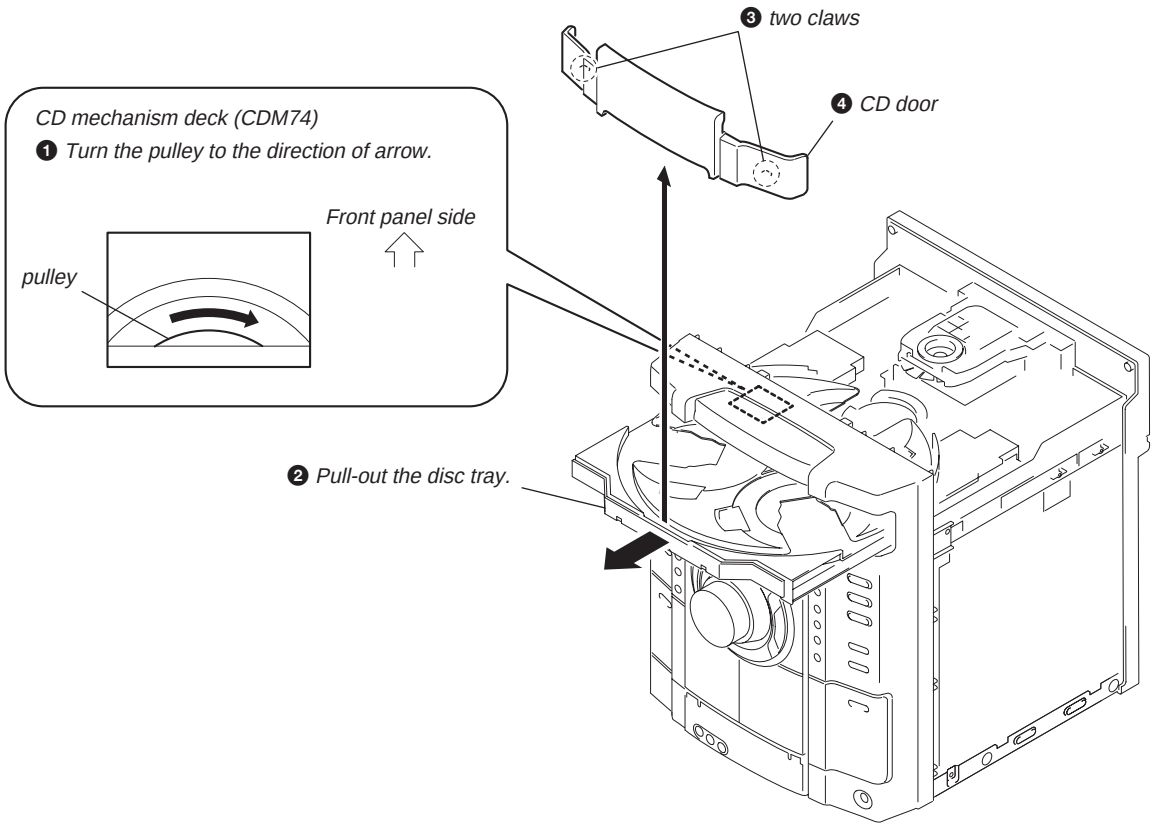


Note: Follow the disassembly procedure in the numerical order given.

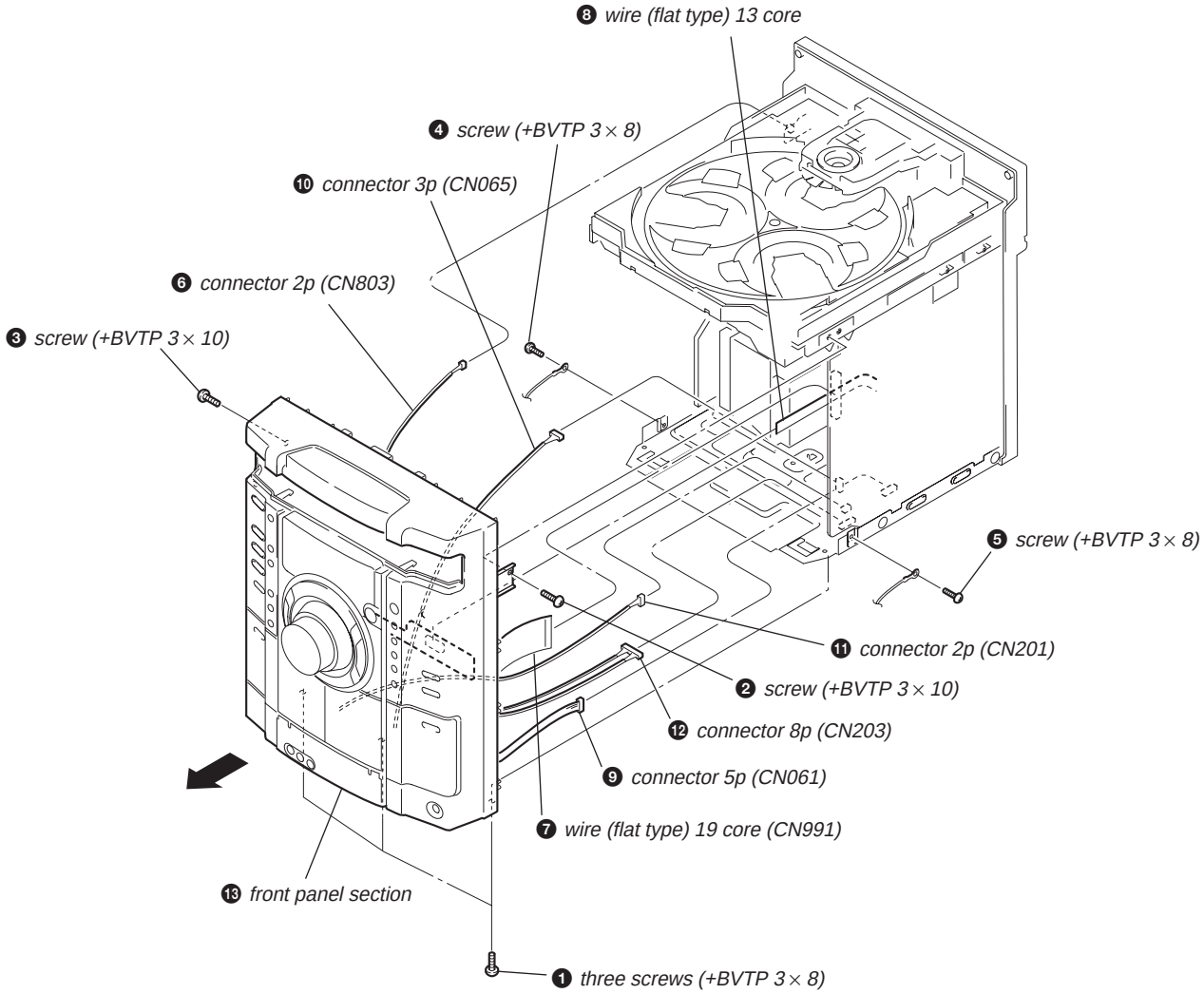
1-2. COVER (TOP)


⓫ two screws (+BVTP 3 × 10)
⓭ cover (top)
⓬
⓬
❻ two screws (Case 3 TP2)
❿ cover (Side-L)
❽ screw (+BVTP 3 × 10)
❺ cover (Side-R)
❾ screw (+BVTP 3 × 10)
❸ screw (+BVTP 3 × 10)
❼ screw (case 3 TP2)
❶ two screws (case 3 TP2)
❹ screw (+BVTP 3 × 10)
❷ screw (Case 3 TP2)

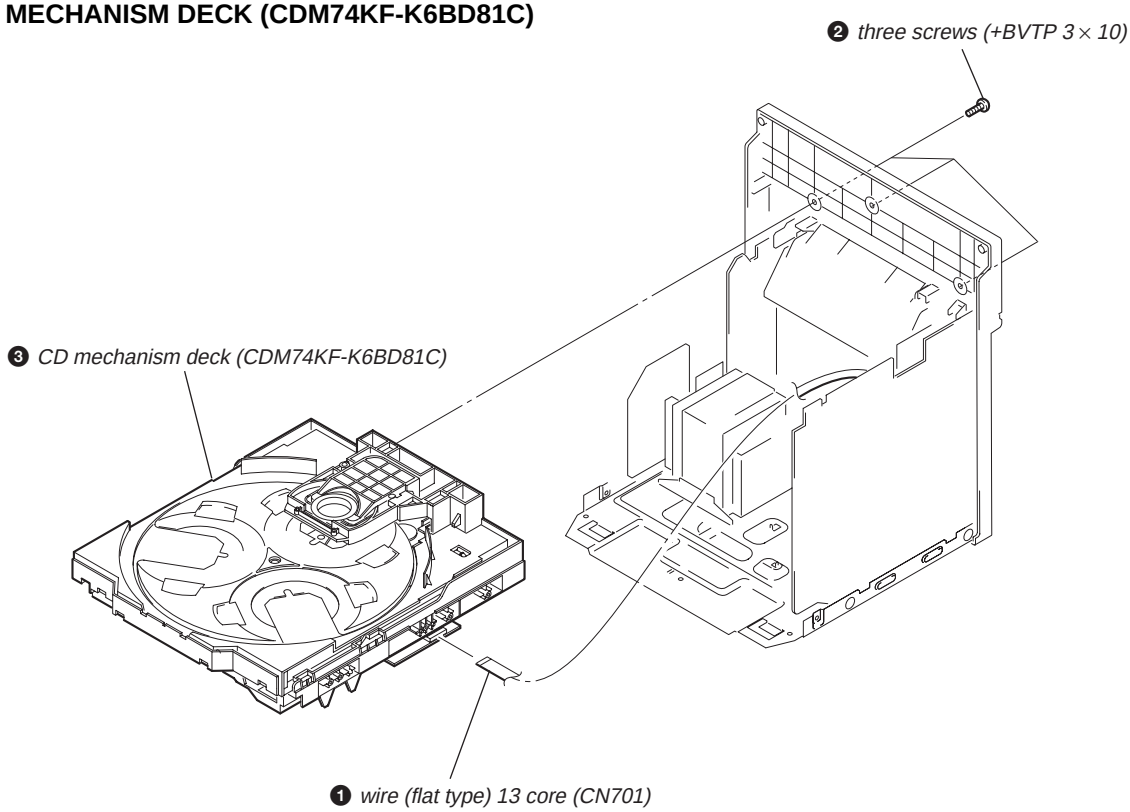
1-3. CD DOOR


❸ two claws
❹ CD door
CD mechanism deck (CDM74)
❶ Turn the pulley to the direction of arrow.
Front panel side
pulley
❷ Pull-out the disc tray.

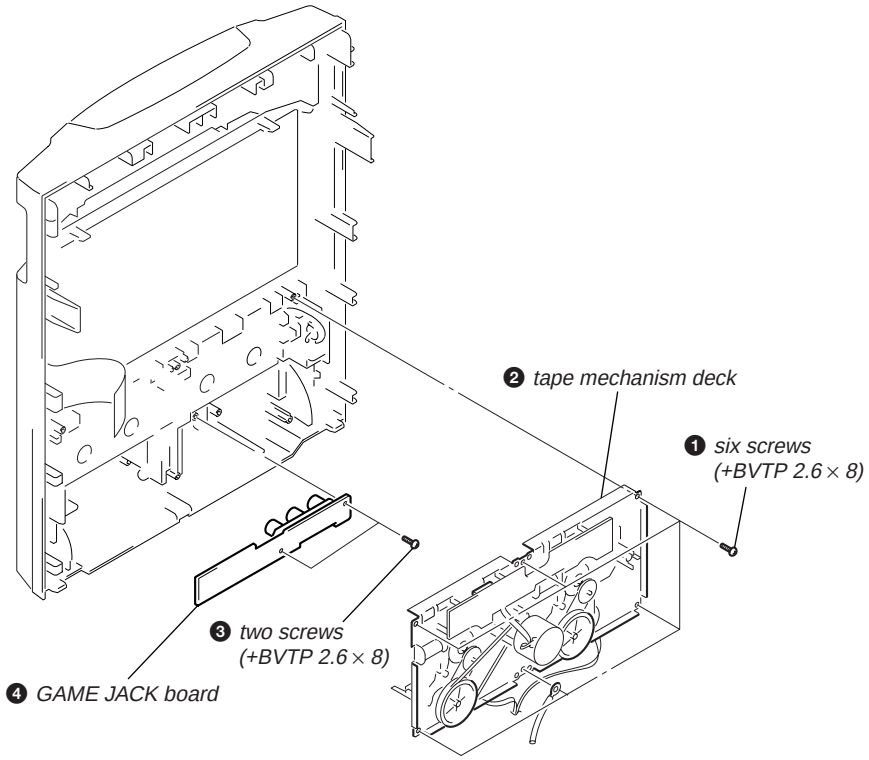
1-4. FRONT PANEL SECTION


❽ wire (flat type) 13 core
❹ screw (+BVTP 3 × 8)
❿ connector 3p (CN065)
❻ connector 2p (CN803)
❸ screw (+BVTP 3 × 10)
❺ screw (+BVTP 3 × 8)
⓫ connector 2p (CN201)
❷ screw (+BVTP 3 × 10)
⓬ connector 8p (CN203)
❾ connector 5p (CN061)
❼ wire (flat type) 19 core (CN991)
⓭ front panel section
❶ three screws (+BVTP 3 × 8)

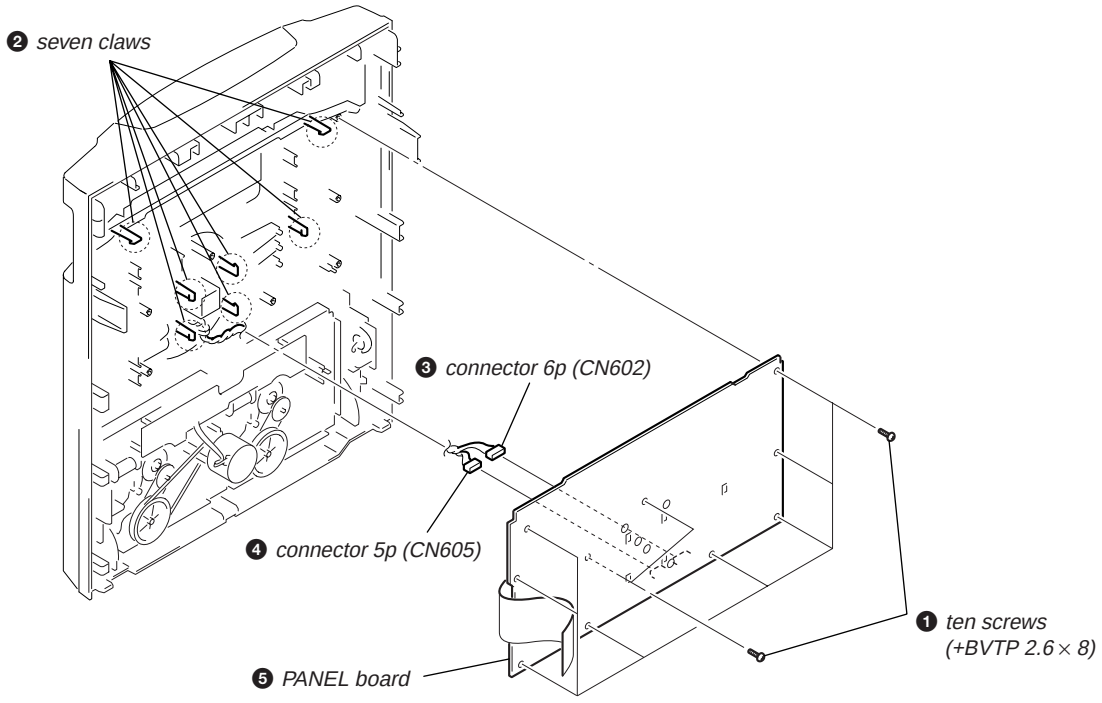
1-5. CD MECHANISM DECK (CDM74KF-K6BD81C)



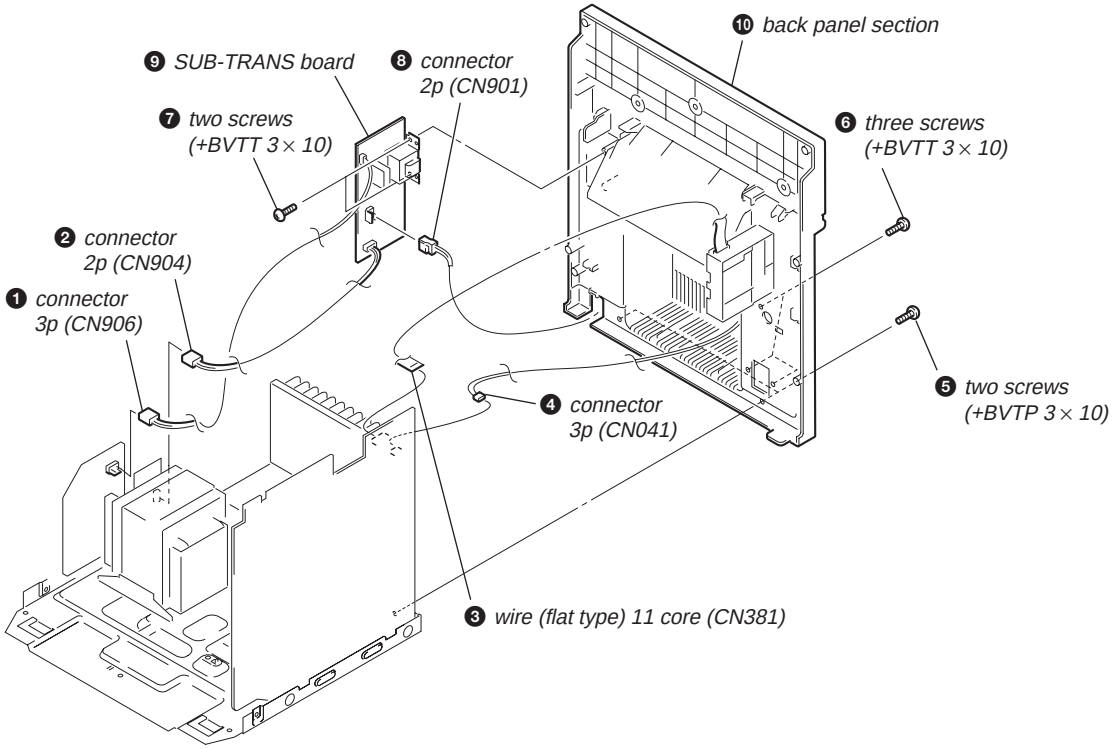
1-6. TAPE MECHANISM DECK, GAME JACK BOARD



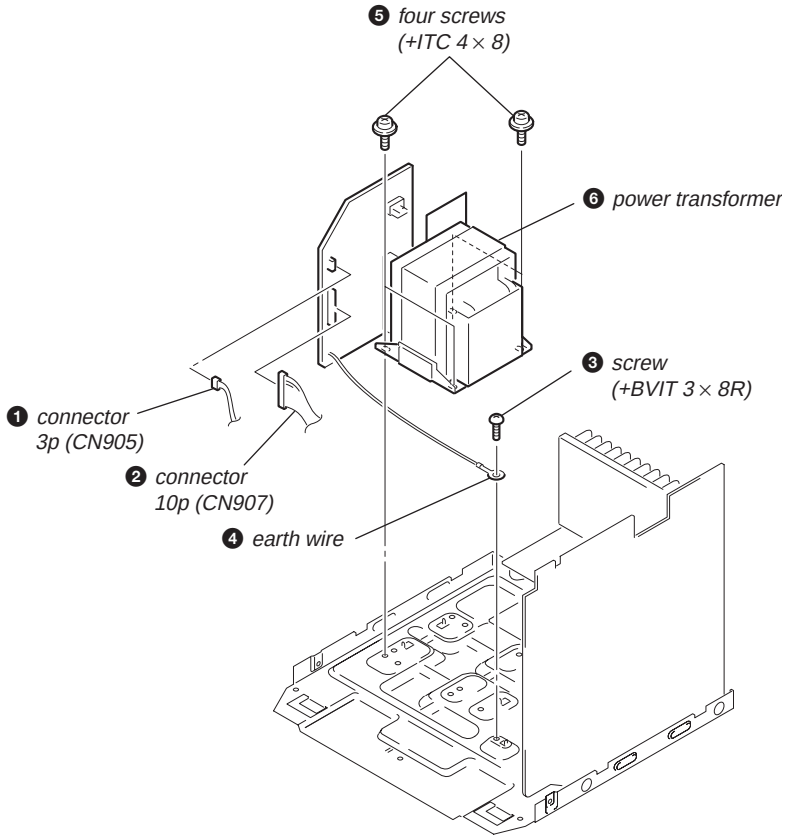
1-7. PANEL BOARD



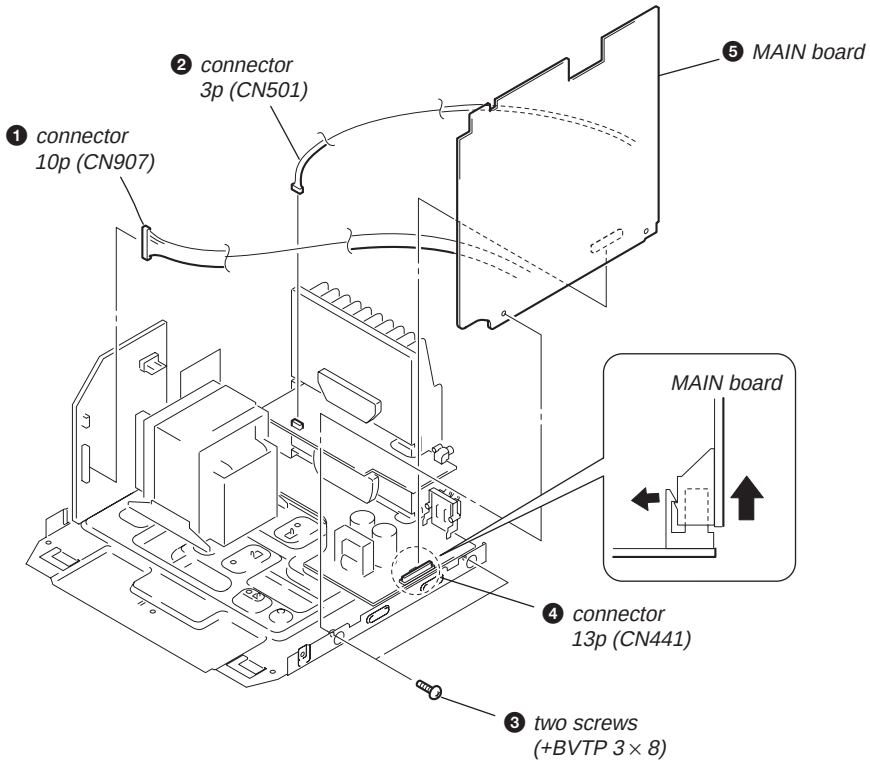
1-8. BACK PANEL SECTION, SUB-TRANS BOARD


❿ back panel section
❾ SUB-TRANS board
❽ connector 2p (CN901)
❼ two screws (+BVTT 3× 10)
❻ three screws (+BVTT 3× 10)
❷ connector 2p (CN904)
❶ connector 3p (CN906)
❺ two screws (+BVTP 3× 10)
❹ connector 3p (CN041)
❸ wire (flat type) 11 core (CN381)

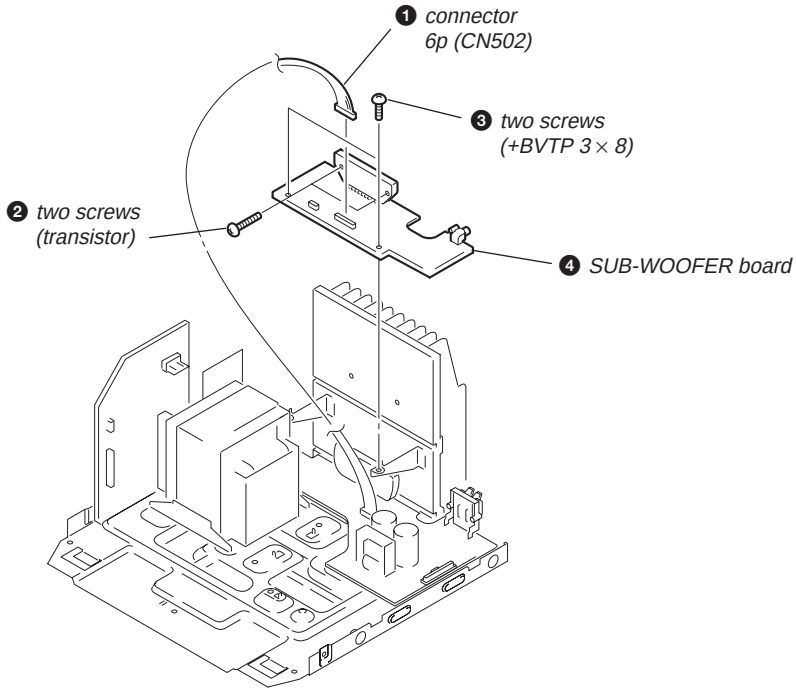
1-9. POWER TRANSFORMER



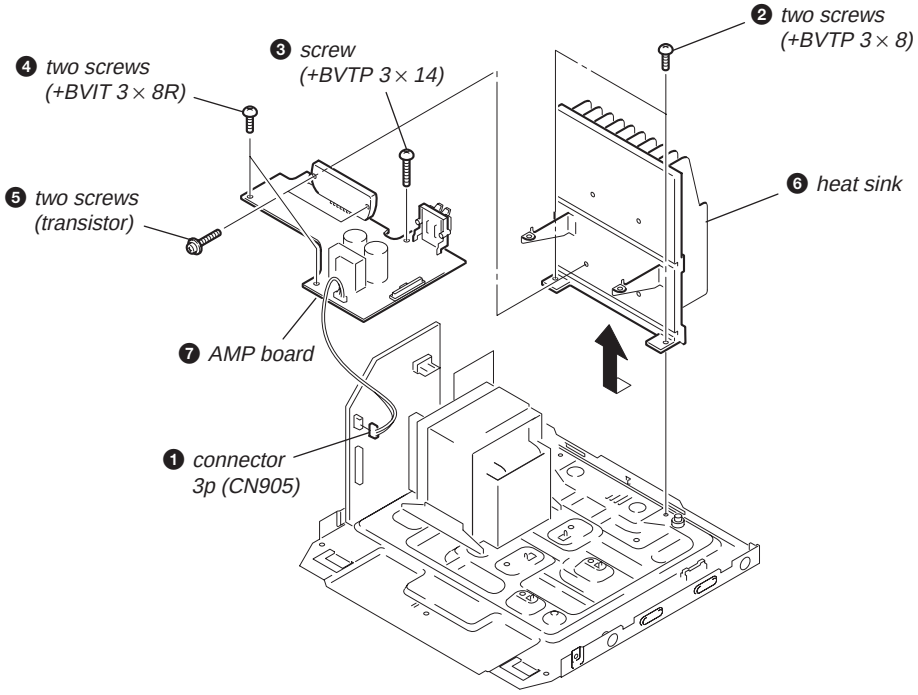
1-10. MAIN BOARD



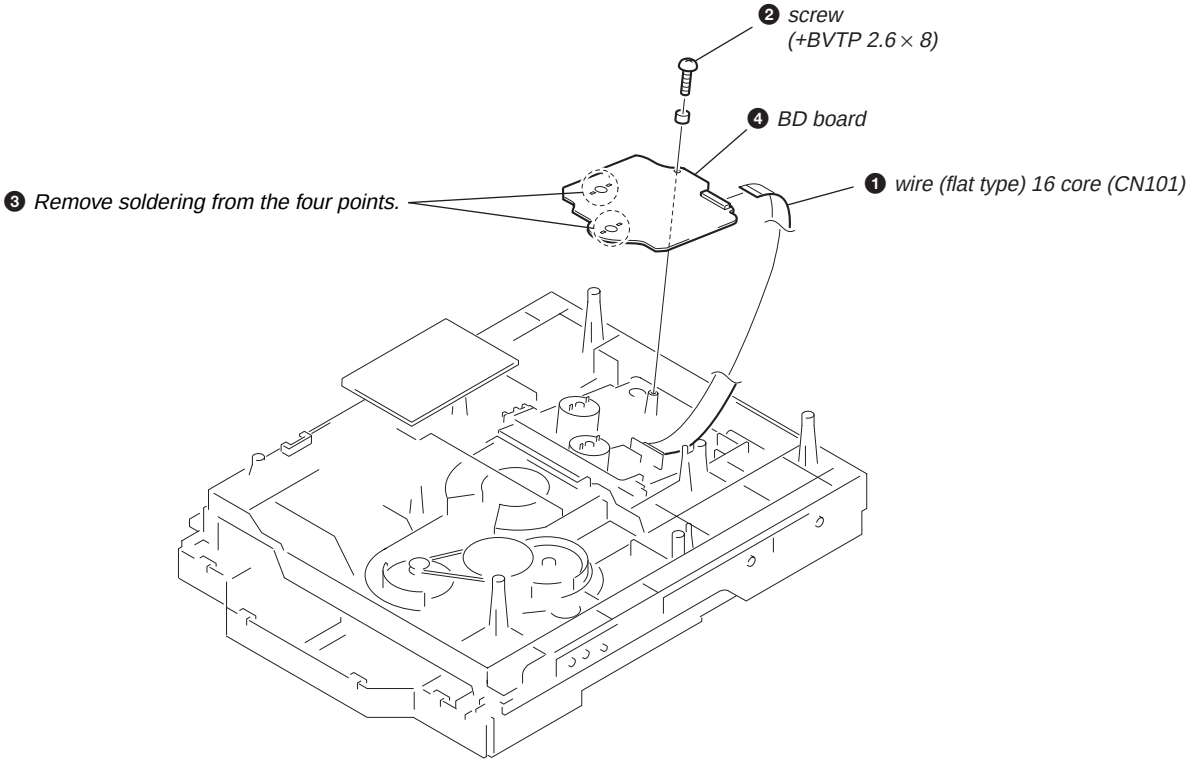
1-11. SUB-WOOFER BOARD



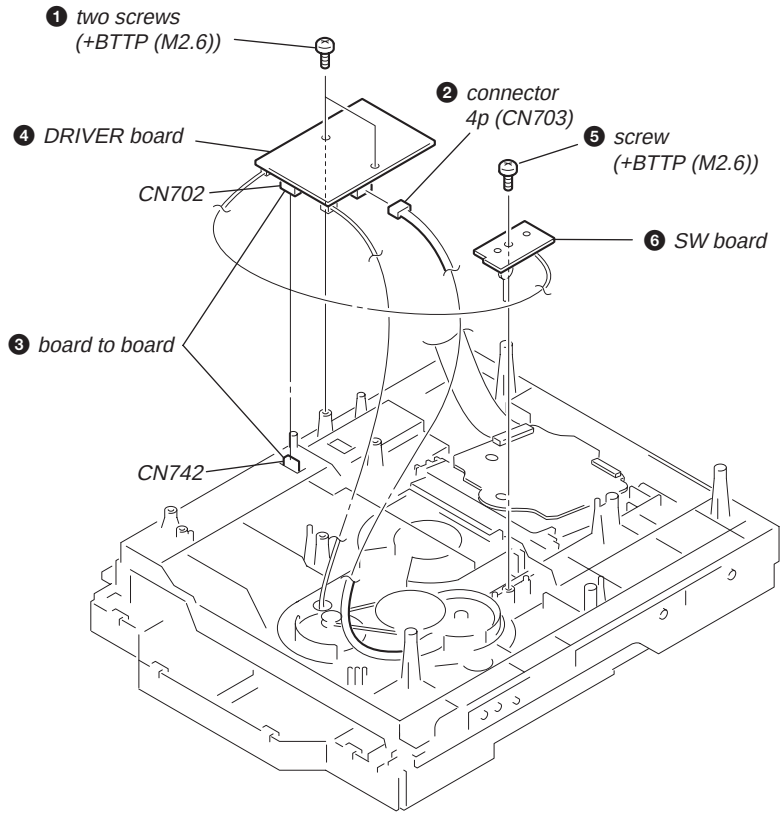
1-12. AMP BOARD



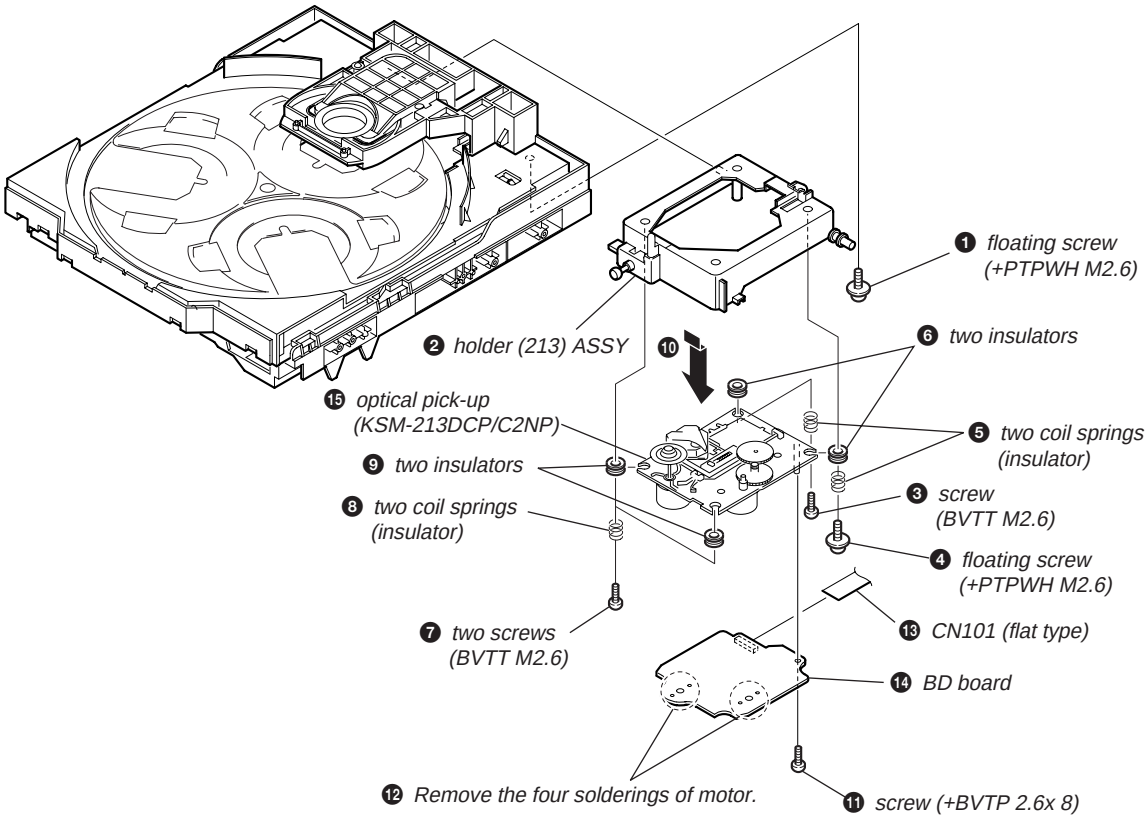
1-13. BD BOARD



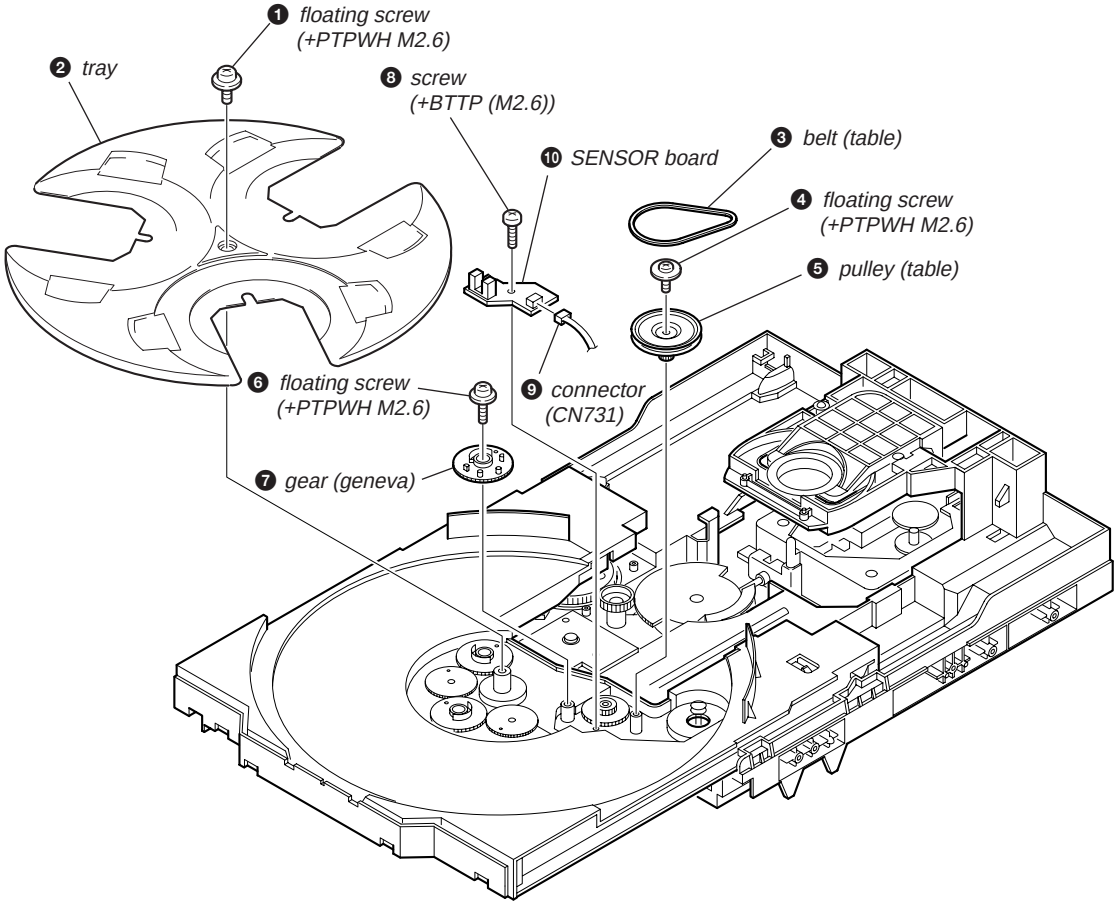
1-14. DRIVER BOARD, SW BOARD



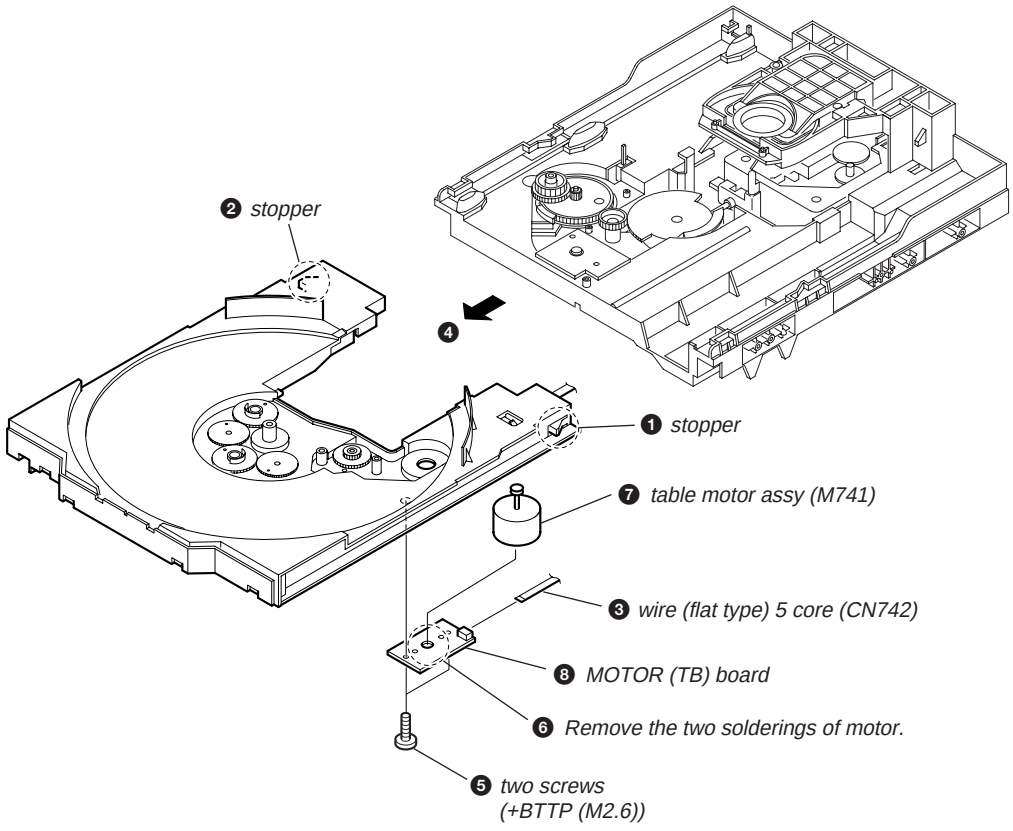
1-15. OPTICAL PICK-UP (KSM-213DCP/C2NP)



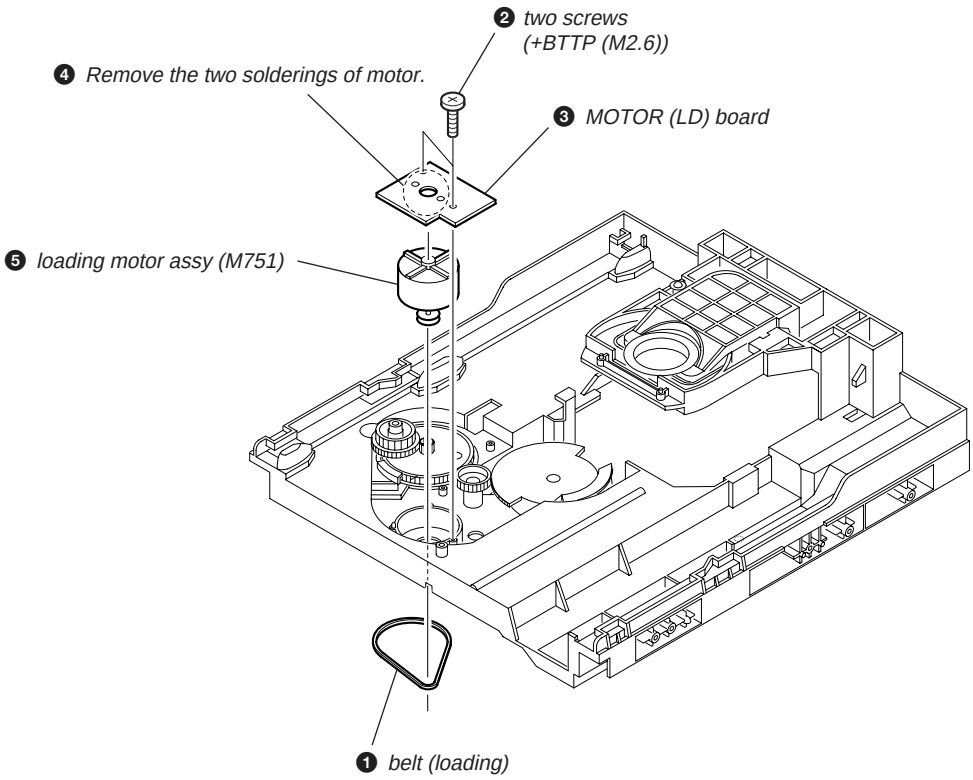
1-16. SENSOR BOARD



1-17. MOTOR (TB) BOARD


❷ stopper
❹
❶ stopper
❼ table motor assy (M741)
❸ wire (flat type) 5 core (CN742)
❽ MOTOR (TB) board
❻ Remove the two solderings of motor.
❺ two screws (+BTTP (M2.6))

1-18. MOTOR (LD) BOARD



SECTION 2
TEST MODE

[Change-over of AM Tuner Step between 9 kHz and 10 kHz]

• A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Select the function "TUNER", and press TUNER/BAND button to select the BAND "AM".
3. Press I/⏻ button to turn the set OFF.
4. Press PLAY MODE/TUNING MODE and I/⏻ buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.

[Cold Reset]

• The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press three buttons ■ , PLAY MODE/TUNING MODE , and DISC 1 simultaneously.
2. The fluorescent indicator tube displays "COLD RESET" and the set is reset.

[Aging Mode]

This mode can be used for operation check of CD section and tape deck section.

• If an error occurred:
The aging operation stops and is displayed status.
• If no error occurs:
The aging operation continues repeatedly.

1. Operating method of Aging Mode

Press I/⏻ button to turn the set ON and select "CD" of the function.

1) Set three discs in tray. Press the PLAY MODE/TUNING MODE button to set the "ALL DISCS" mode, and the PRESET EQ button to "REPEAT" off.
2) Load the tapes recording use into both decks.
3) Press three buttons ■ , PLAY MODE/TUNING MODE , and EX-CHANGE simultaneously.
4) Aging operations of CD and tape are started at the same time.
5) To exit the aging mode, perform [Cold Reset].

2. Aging mode in CD section

1) Operation during aging mode

• In the agining mode ,the program is excuted in the following sequence.

(1) The disc tray opens and closes.
(2) The disc tray turns to select a disc 3.
(3) The pick-up accesses to the first track, and plays 3 seconds.
(4) The pick-up accesses to the last track, and plays 3 seconds.
(5) The disc tray opens and closes.
(6) The disc tray turns to select a disc 1.
(7) The same operation starts like step (3).
(8) After a disc 1 aging operation, a disc 2 is selected.
(9) When an aging operation of a disc 3 is completed, the display "AGING ****" value increases.
(10) If no error occurs, the aging operation continues repeatedly.

2) Error display

Disc error	
Display	Error
E00D01022	Focus error (No disc)
E00D02022	Sub Q error (Focus is good)
E00D02023	TOC reading error
E00D02014	Access error (Unable within regular time)

Mechanism error	
Display	Error
E00M__E_0	Error during opening tray
E00M__C_2	EX-CHANGE disc error
E00M__D_0	Error during closing tray
E00M__F_3	EX-OPEN error
E00M__D_5	EX-CLOSE error
E00M__C_2	Chuck-up error
E00M__C_3	Unchucking error

3. Aging mode in Tape Deck section

1) Operation during aging mode

• In the agining mode, the program is excuted in the following sequence.

Step	Operation	Display
1	Rewind the TAPE A	TAPE AAG-1
2	Rewind the TAPE B	TAPE BAG-2
3	Play the TAPE A (1 minute)	TAPE AAG-2
4	Stop the TAPE A (1 second)	TAPE AAG-3
5	Play the TAPE A (3 minutes)	TAPE AAG-4
6	Rewind(AMS) the TAPE A	TAPE AAG-5
7	F.F.(AMS) the TAPE A	TAPE AAG-6
8	Play the TAPE B (1 minute)	TAPE BAG-2
9	Stop the TAPE B (1 second)	TAPE BAG-3
10	Record the TAPE B (3 minutes)	TAPE BAG-4
11	Rewind(AMS) the TAPE B	TAPE BAG-5
12	F.F.(AMS) the TAPE B	TAPE BAG-6

2) Error display

• If error occurred, the display remains like "TAPE BAG-2".

4. Exiting from the aging mode

• Be sure to perform Cold Reset to exit from the aging mode.

[PANEL Test Mode]

- All fluorecent segments and LEDs are tested.
- Keyboard check.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. To enter the test mode, press the three buttons [■], [PLAY MODE/TUNING MODE] and [ENTER] simultaneously.
3. All segments and LEDs (without STANDBY LED) are turned on.
4. Press [▮▮] and [ENTER] buttons simultaneously, and the key check mode is activated.
5. The message “KEY 0 0 0 ” is displayed.
   Each time a button is pressed, the key code number is displayed.
6. Press [▮▮] and [ENTER] buttons simultaneously, and the key count mode is activated.
7. The message “KEYCNT 0” is displayed.
   Each time a button is pressed, “KEYCNT 0” value increased. However, once a button is pressed, it is no longer taken into account.
8. Press [▮▮] and [ENTER] buttons simultaneously, and the head phone detect mode is activated.
9. The message “H_P OFF” is displayed when a headphone jack is not inserted.
   “H_P ON ” is displayed when a headphone jack is inserted.
10. Press [▮▮] and [ENTER] buttons simultaneously, and the volume control detect mode is activated.
11. The message “VOLUME FLAT” is displayed.
    “VOLUME UP” is displayed if rotating [MASTER VOLUME] knob clockwise, or “VOLUME DOWN” is displayed if rotating counterclockwise.
12. To exit from the GC test mode after the head phone detect mode, press [▮▮] and [ENTER] buttons simultaneously.

[Version and Destination Display Mode]

- The version or destination is displayed.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. To enter the test mode, press the three buttons [■], [PLAY MODE/TUNING MODE] and [DISC 2] simultaneously.
3. The destination is displayed.
4. Press [DISPLAY] buttons simultaneously.
5. The version is displayed.
6. To exit from this mode, press the three buttons [■], [PLAY MODE/TUNING MODE] and [DISC 2] simultaneously and press [I/⏻] button to turn the set OFF.

[CD Service Mode]

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function “CD”.
3. To enter the test mode, press three buttons [■], [PLAY MODE/TUNING MODE], and [⏏] simultaneously.
4. The CD service mode is selected.
5. With the CD in stop status, press [▶▶] button to move the pick-up to outside track, or press [◀◀] button to inside track.
6. To exit from this mode, perform as follows:
   1) Move the pick-up to the most inside track.
   2) Press [I/⏻] button to turn the set OFF.

Note:
- Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

[MC Test Mode]

- This mode is used to test the function of the equalizer.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. To enter the test mode, press the three buttons [■], [PLAY MODE/TUNING MODE] and [DISC 3] simultaneously.
3. Press the [EQ +] button.
   The function of the equalizer is set to “MAX”.
4. Press the [EQ -] button.
   The function of the equalizer is set to “MIN”.
5. Press the [PRESET EQ] button.
   The function of the equalizer is set to “EQ FLAT”.
6. [MASTER VOLUME] up and down.
   “VOLUME MIN” “VOLUME 16” “VOLUME MAX” is displayed.
7. Press the [GROOVE] button.
   The message “VACS OFF” or “VACS ON” is displayed.
8. To exit from this mode, press [I/⏻] button to turn the set OFF.

[CD Ship Mode (LOCK)]

- This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function “CD”.
3. Press [I/⏻] button to turn the set OFF.
4. Press [CD] button and [I/⏻] button simultaneously.
5. The “STANDBY” display blinks instantaneously, the message “LOCK” is displayed and the CD ship mode is set.

[CD Ship (LOCK) & COLD RESET MODE]

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select the function “CD”.
3. Press [I/⏻] button to turn the set OFF.
4. Press three buttons [■], [CD] and [DISPLAY] simultaneously.
5. The “STANDBY” display blinks instantaneously and CD ship mode is set.
6. To fluorescent indicator tube displays “COLD RESET” and the set is reset.

[Disc Tray Lock]

Procedure:

1. Press the [I/⏻] button to turn the set ON.
2. Select the function “CD”.
3. Press two buttons of [■] and [⏏] simultaneously for five seconds.
4. The message “LOCKED” is displayed and the tray is locked. (Even if exiting from this mode, the tray is still locked.)
5. Press two buttons of [■] and [⏏] simultaneously for five seconds again.
6. The message “UNLOCKED” is displayed and the tray is unlocked.
7. To exit from this mode, press the [I/⏻] button to turn the set OFF.

[CD Repeat 5 Times Limit Release Mode]

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Select the function “CD”.
3. Press three buttons ■ , CD and ENTER simultaneously.
4. The message “LIMIT OFF” is displayed.
5. Press I/⏻ button the set OFF.

[AMP TEST MODE]

Procedure:

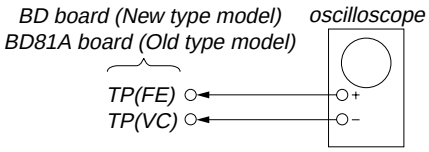
1. Press I/⏻ button to turn the set ON.
2. To enter the test mode, press three buttons ■ , PLAY MODE/TUNING MODE and ENTER simultaneously.
3. Press the DISPLAY button.
   The message “V0 0 0” “ 000” is displayed.
4. Press the GROOVE button.
   The message “DBFB ON” “DBFB OFF” is displayed.
5. Press the SURROUND button.
   The message “SURROUND ON” “SURROUND OFF” is displayed.
6. Press the EQ BAND button.
   The message “LOW” “MID” “HIGH” is displayed.
7. Press I/⏻ button to turn the set OFF.

SECTION 3
ELECTRICAL ADJUSTMENTS

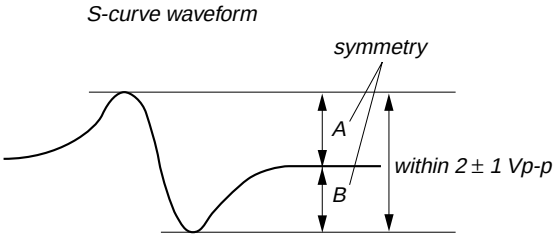
CD SECTION

Note:
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-CURVE CHECK



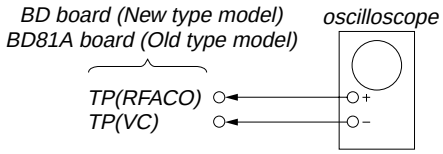
Procedure:
1. Connect an oscilloscope to TP (FE) and TP (VC) on the BD board (New type model) or BD81A board (Old type model).
2. Press the I/⏻ button to turn the power on.
3. Load the disc (YEDS-18) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
4. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2 ± 1 Vp-p.



Note:
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

Connecting Location: BD board (Side B)(New type model)
BD81A board (Side B)(Old type model)

RFAC LEVEL CHECK

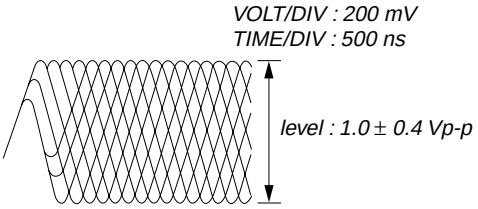


Procedure:
1. Connect an oscilloscope to TP (RFACO) and TP (VC) on the BD81A board.
2. Press the I/⏻ button to turn the power on.
3. Load the disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check if RFAC signal level is correct or not.

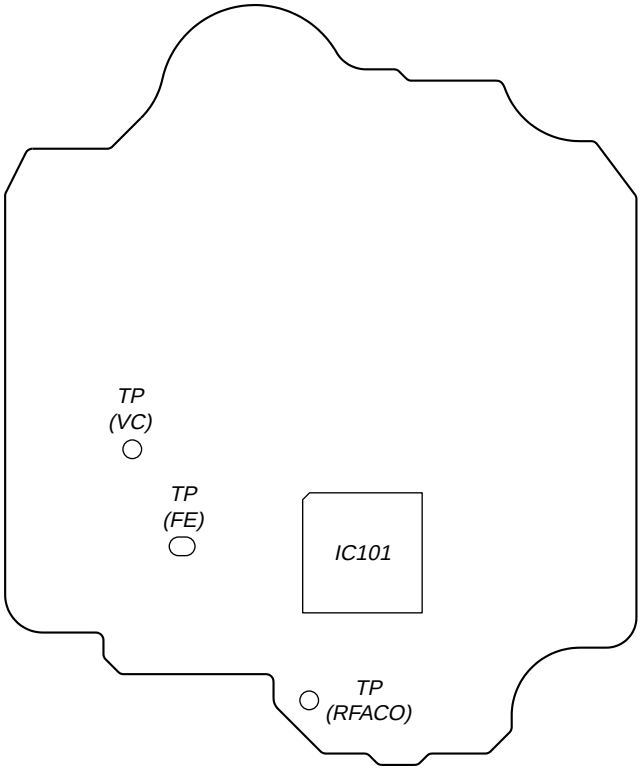
Note: Clear RFAC signal waveform means that the shape " ◊ " can be clearly distinguished at the center of the waveform.

Connecting Location: BD board (Side B)(New type model)
BD81A board (Side B)(Old type model)

RF signal waveform



– BD BOARD (Side B)(New type model) –
– BD81A BOARD (Side B)(Old type model) –



SECTION 4
DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Schematic Diagrams.
Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

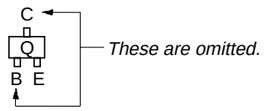
- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
  – BD SECTION –
  no mark : CD PLAY
  – Other SECTION –
  no mark : FM
  ( ) : CD PLAY
  ⟨⟨ ⟩⟩ : TAPE PLAY
  [ ] : TAPE REC
  ∗ : Impossible to measure
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : TUNER
  Σ : PB (DECK A)
  ▷ : PB (DECK B)
  Σ» : REC (DECK B)
  ⇦ : CD
  ➡ : AUDIO
  ⇨ : VIDEO
- Abbreviation
  CND : Canadian model

For Printed Wiring Boards.
Note:

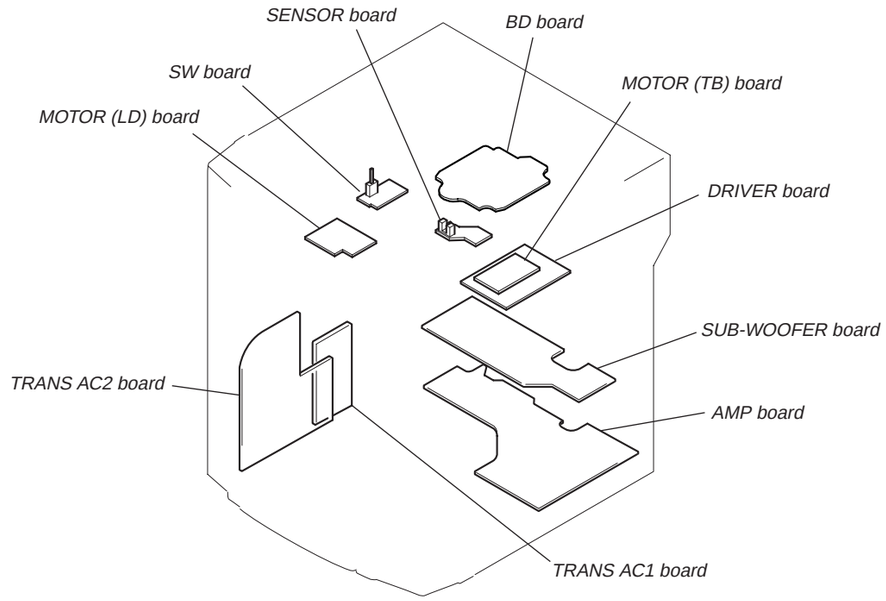
- ○——— : parts extracted from the component side.
- ▬ : Pattern from the side which enables seeing.

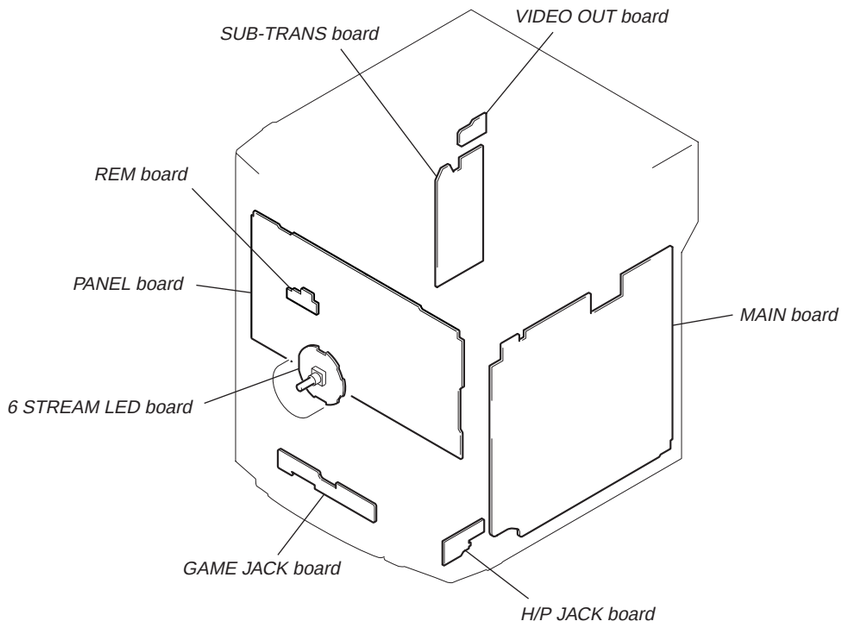
Caution:	
Pattern face side: (SIDE A)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (SIDE B)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.

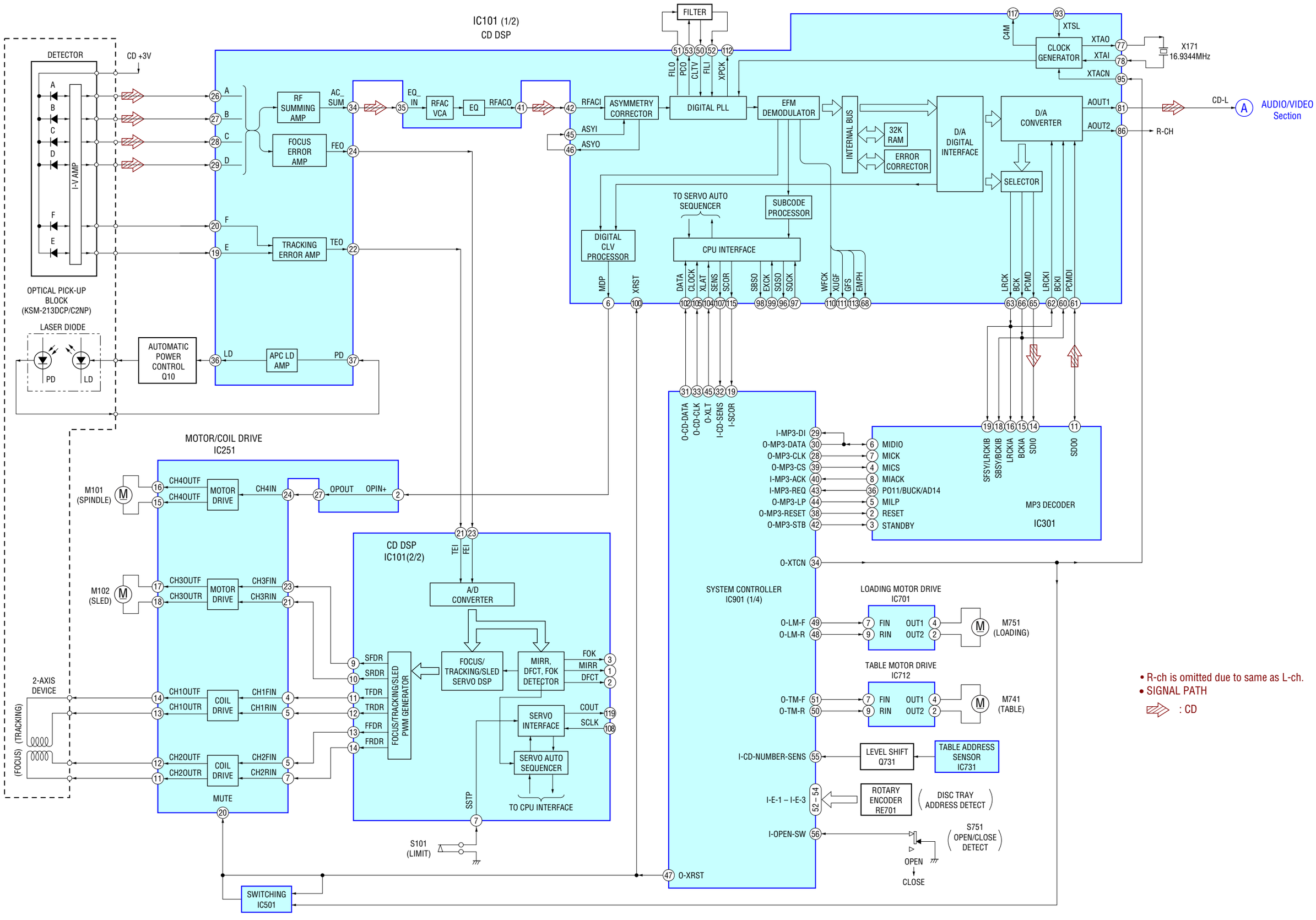


- **Circuit Boards Location**



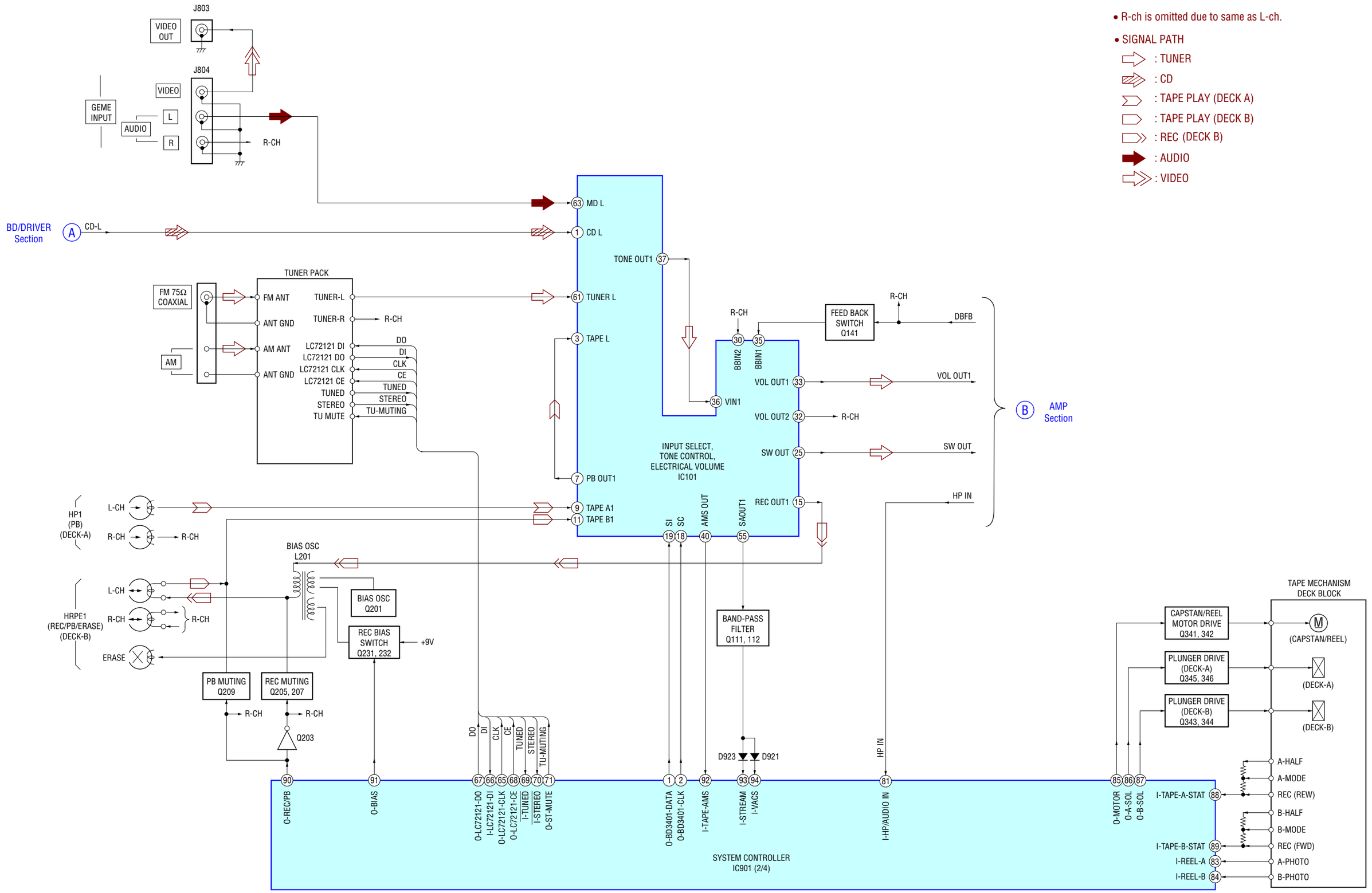


4-1. BLOCK DIAGRAM – BD/DRIVER SECTION –

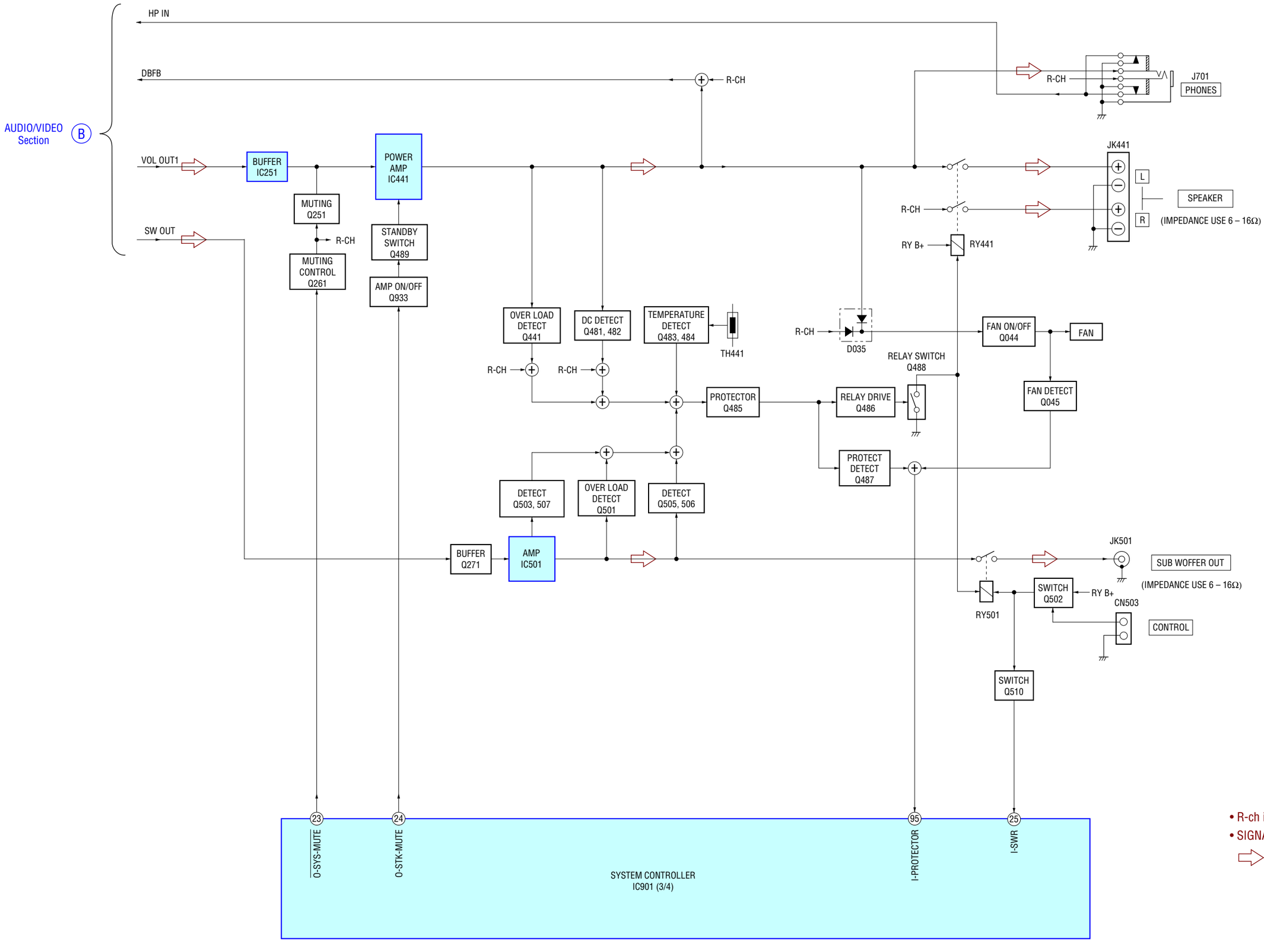


- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  : CD

4-2. BLOCK DIAGRAM – AUDIO/VIDEO SECTION –

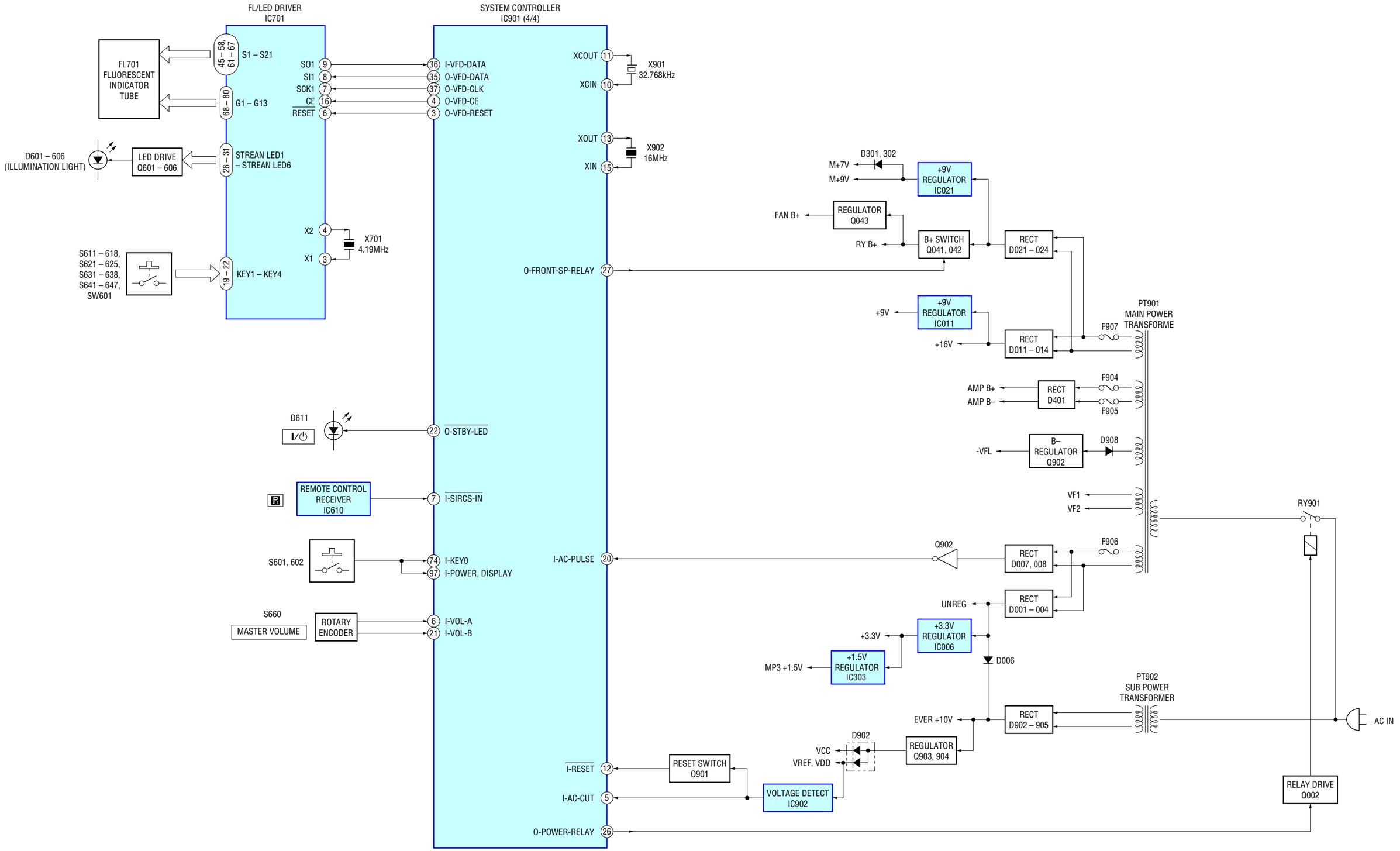


4-3. BLOCK DIAGRAM – AMP SECTION –



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  ⇨ : TUNER

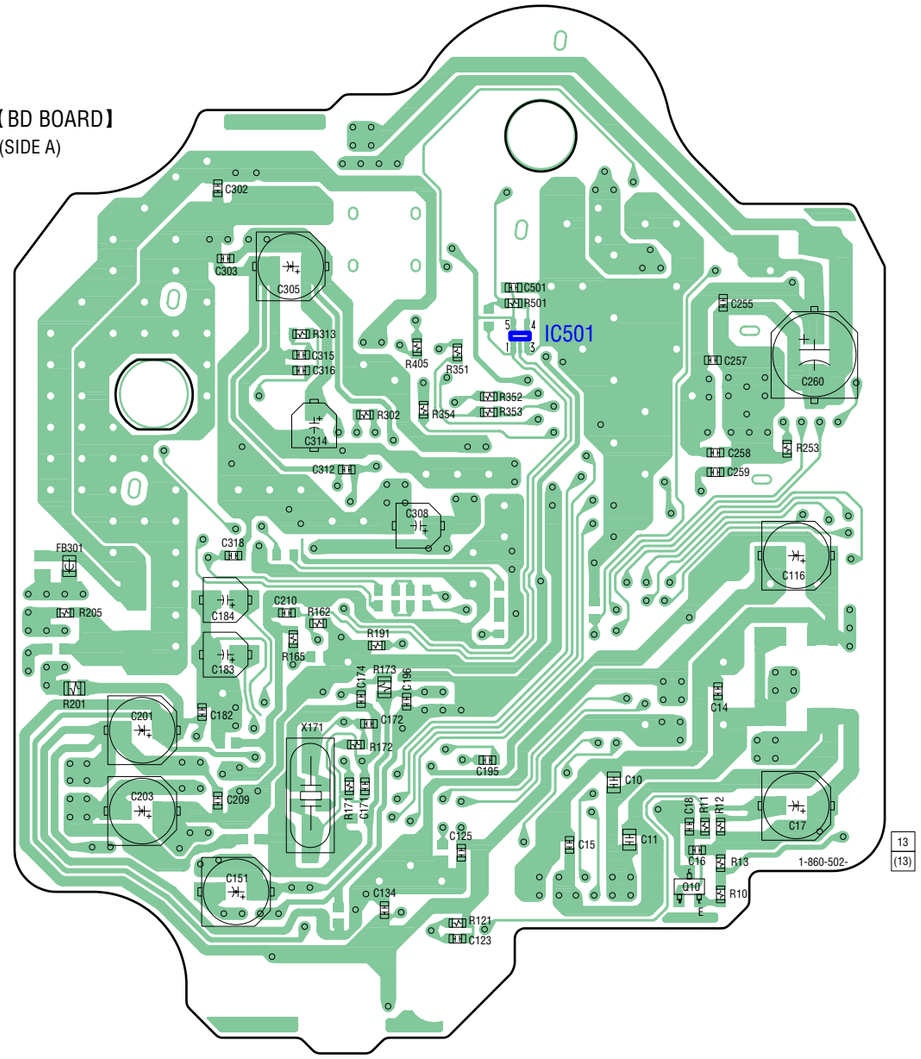
4-4. BLOCK DIAGRAM – PANEL SECTION –



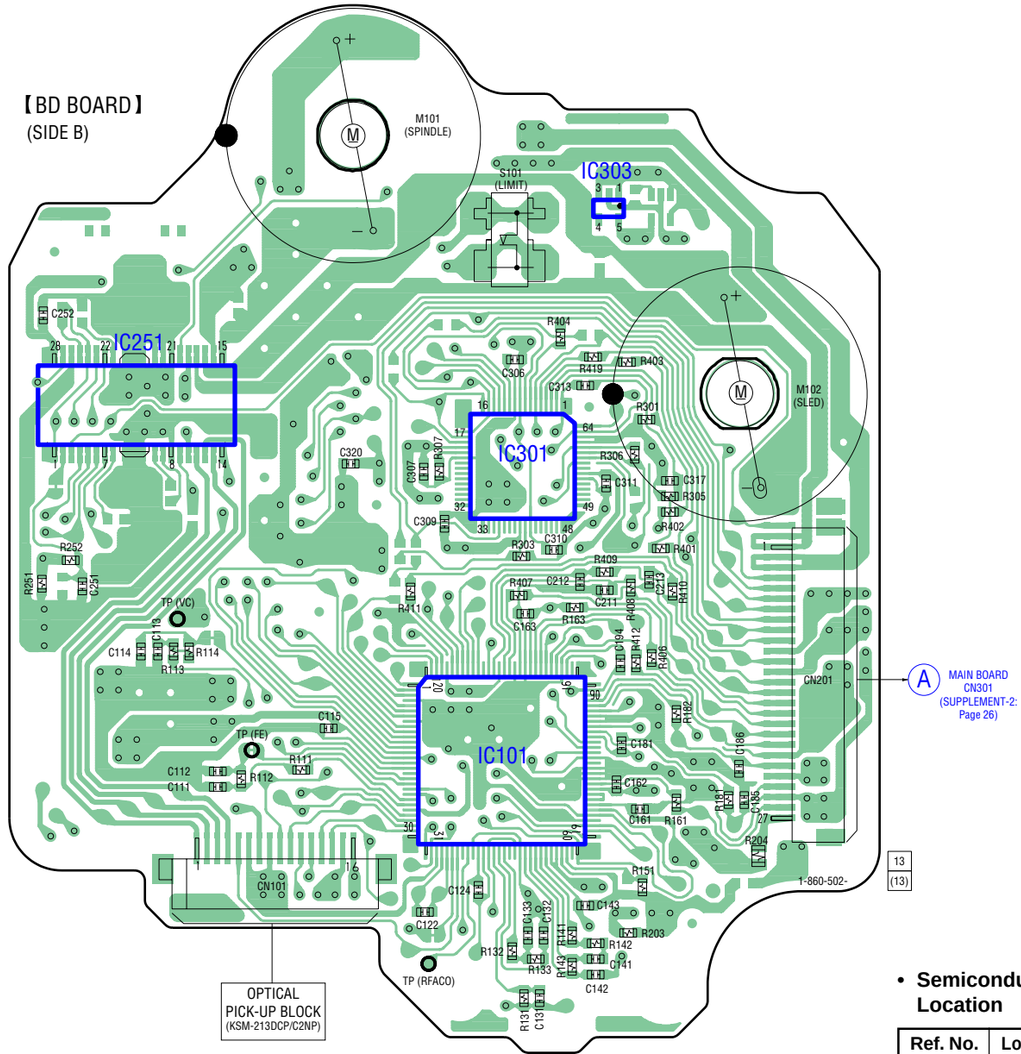
4-5. PRINTED WIRING BOARD – BD SECTION –

• See page 17 for Circuit Boards Location. :Uses unleaded solder.

【BD BOARD】
(SIDE A)



【BD BOARD】
(SIDE B)

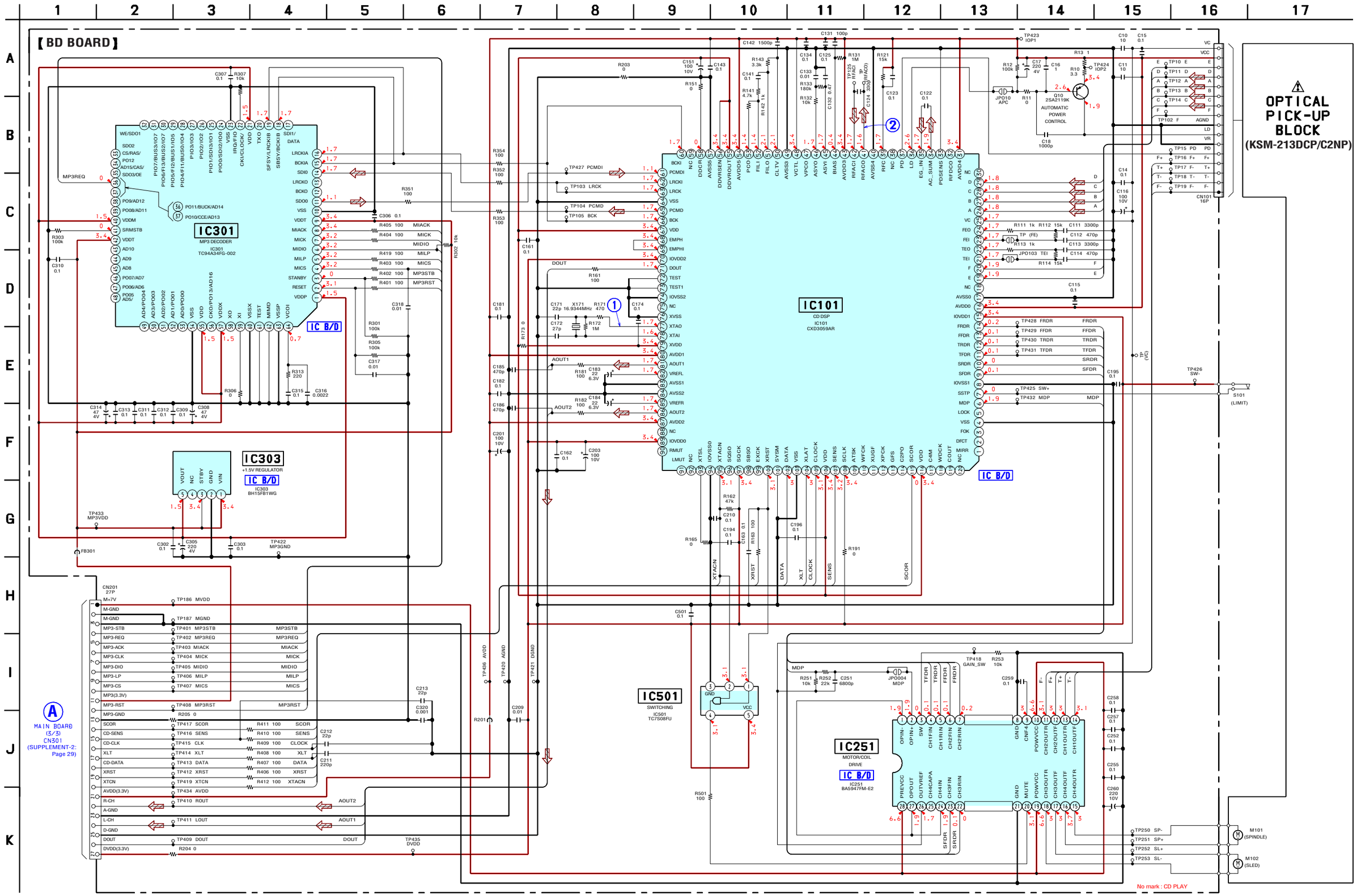


• **Semiconductor Location**

Ref. No.	Location
IC101	D-7
IC251	B-6
IC301	B-7
IC303	B-7
IC501	B-3
Q10	D-4

4-6. SCHEMATIC DIAGRAM – BD SECTION –

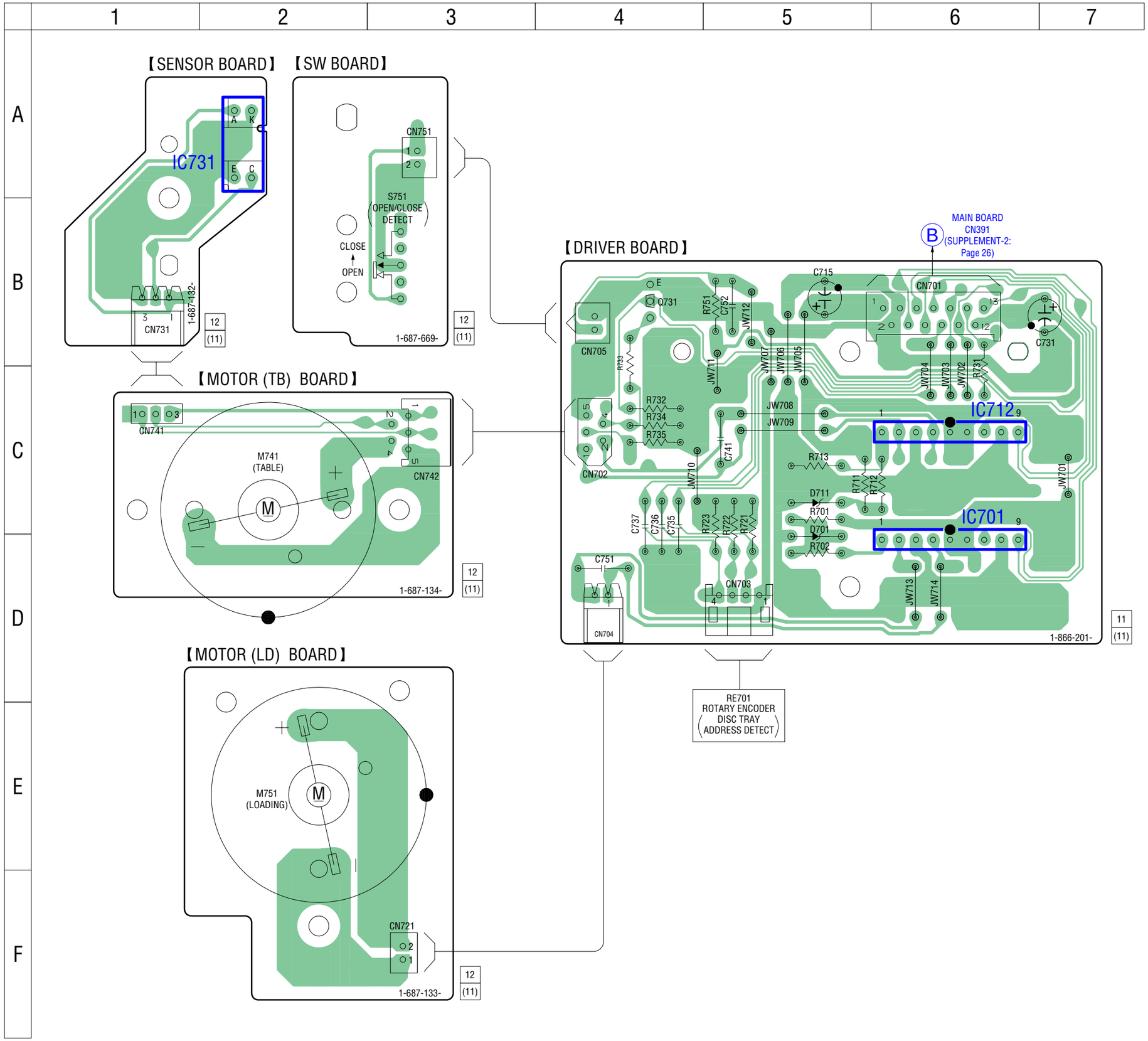
• See page 40 for Waveforms. • See page 40, 41 and 42 for IC Block Diagrams.



4-7. PRINTED WIRING BOARD – CD MECHANISM SECTION –

• See page 17 for Circuit Boards Location.

:Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location
D701	D-5
D711	C-5
IC701	D-6
IC712	C-6
IC731	A-2
Q731	B-4

4-8. SCHEMATIC DIAGRAM – CD MECHANISM SECTION –

• See page 42 for IC Block Diagrams.

【DRIVER BOARD】

【MOTOR (LD) BOARD】

【MOTOR (TB) BOARD】

【SENSOR BOARD】

【SW BOARD】

IC701
LOADING MOTOR DRIVE
IC B/D
IC701
BA6956AN
VREF OUT2 RNF OUT1 VM VCC FIN GND RIN
5 0 0 9 9 0 0

IC712
TABLE MOTOR DRIVE
IC B/D
IC712
BA6956AN
3.1 0 0 9 9 0 0

M751 (LOADING)
CN721 2P
CN704 2P
LM-2
LM-1
C751 0.01
R702 100
R701 470
D701 MTZJ-T-77 5.1A

RE701 DISC TRAY ADDRESS DETECT
CN703 4P
E3
E2
E1
GND

C735 0.1
C736 0.1
C737 0.1
R723 4.7k
R722 4.7k
R721 4.7k
R712 4.7k
R711 1k
D711 MTZJ-T-77 3.6B
R713 22k
C715 100 16V
C741 0.01

M741 (TABLE)
CN742 5P
CN702 5P
TM-2
TM-1
CN731 3P
CN741 3P
SENS-IN
SENS-OUT
GND
R735 100

IC731 RPI-576
1.2
0.1
IC731
TABLE ADDRESS SENSOR

S751 (OPEN/CLOSE DETECT OPEN → CLOSE)
CN751 2P
CN705 2P
OPEN SW
GND

R734 12k
R733 1k
R732 10k
R731 100
0.1
3.2
Q731 DTC114ESA LEVEL SHIFT
C731 10 50V
C752 0.1
R751 4.7k

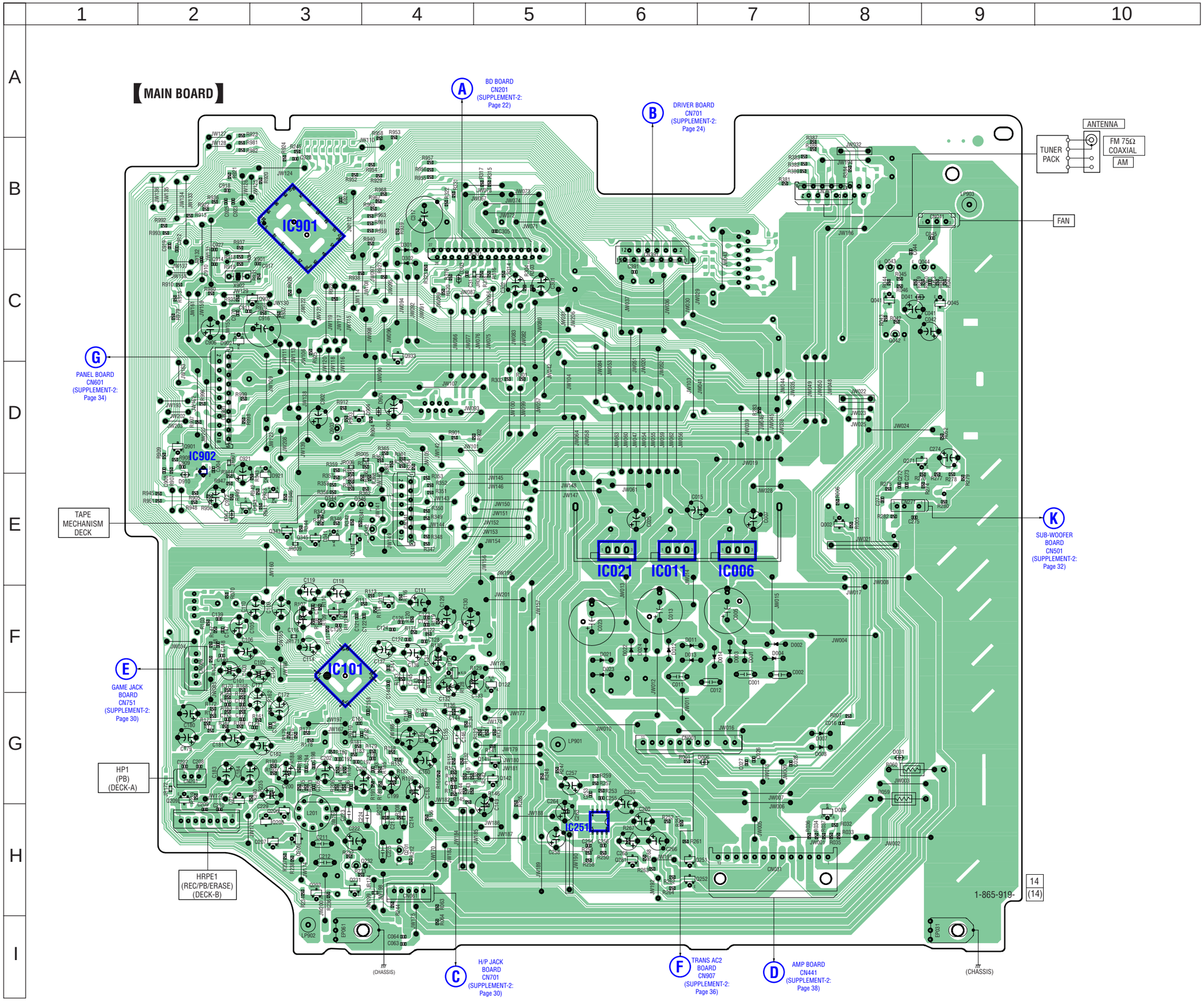
CN701 13P
CD-VM
GND
GND
LM-R
LM-L
TM-R
TM-L
E-1
E-2
E-3
TBL ADDRESS SENS
D+3.3V

B
MAIN BOARD (3/3) CN391
(SUPPLEMENT-2: Page 29)

No mark : FM

4-9. PRINTED WIRING BOARD – MAIN SECTION –

• See page 17 for Circuit Boards Location. :Uses unleaded solder.

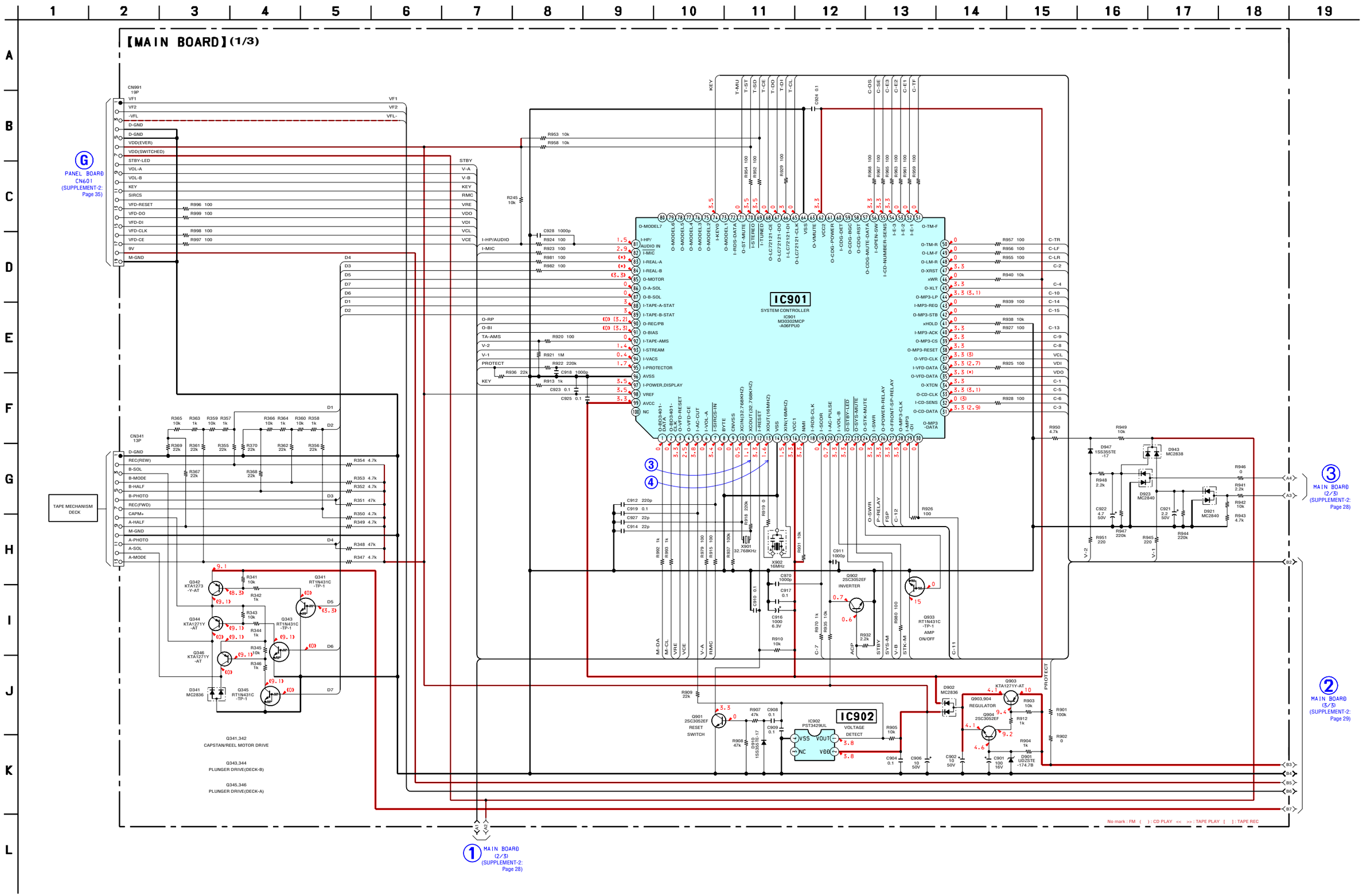


- **Semiconductor Location**

Ref. No.	Location
D001	F-7
D002	F-7
D003	F-7
D004	F-7
D006	G-7
D007	G-8
D008	G-8
D011	F-6
D012	F-6
D013	F-6
D014	F-7
D021	F-6
D022	F-6
D023	F-6
D024	F-6
D031	G-8
D035	H-8
D041	C-8
D121	F-4
D122	F-5
D301	B-4
D302	C-4
D303	C-4
D341	E-3
D901	D-4
D902	C-2
D910	E-2
D921	E-3
D923	E-3
D943	E-2
D947	E-2
IC006	E-7
IC011	E-6
IC021	E-6
IC101	F-3
IC251	E-3
IC901	E-2
IC902	E-2
Q002	E-8
Q041	C-8
Q042	C-8
Q043	C-8
Q044	C-9
Q045	C-9
Q111	F-3
Q112	F-4
Q141	G-5
Q142	G-5
Q201	H-4
Q203	H-3
Q205	H-3
Q206	H-3
Q207	H-3
Q208	H-3
Q209	G-2
Q210	G-2
Q231	H-3
Q232	H-3
Q251	H-6
Q252	H-6
Q261	H-6
Q271	D-9
Q341	E-3
Q342	E-4
Q343	E-3
Q344	E-3
Q345	E-3
Q346	E-4
Q901	D-2
Q902	C-3
Q903	D-3
Q904	D-3
Q933	C-4\

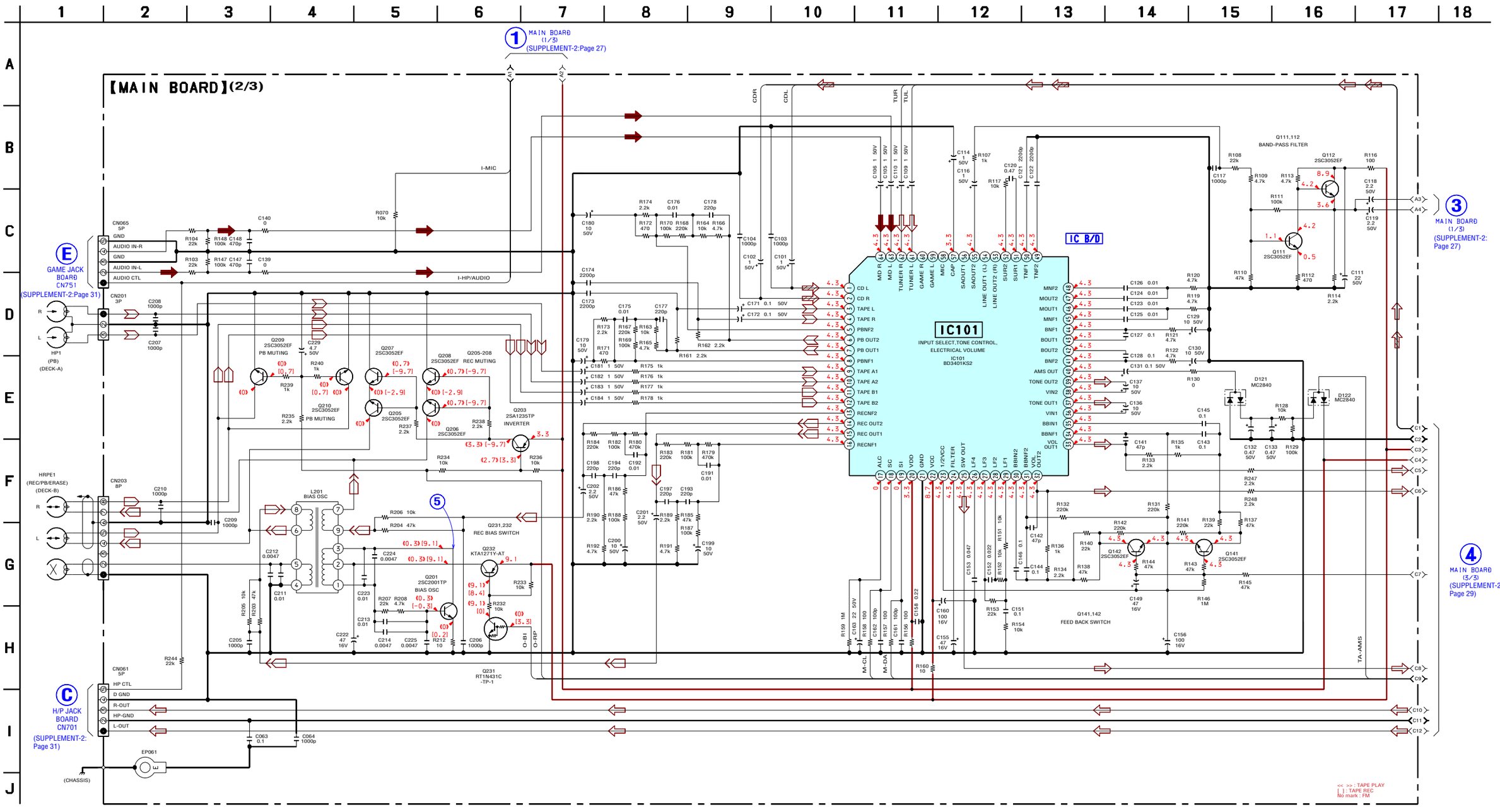
4-10. SCHEMATIC DIAGRAM – MAIN SECTION (1/3) –

• See page 40 for Waveforms. • See page 44 for IC Pin Function Description.

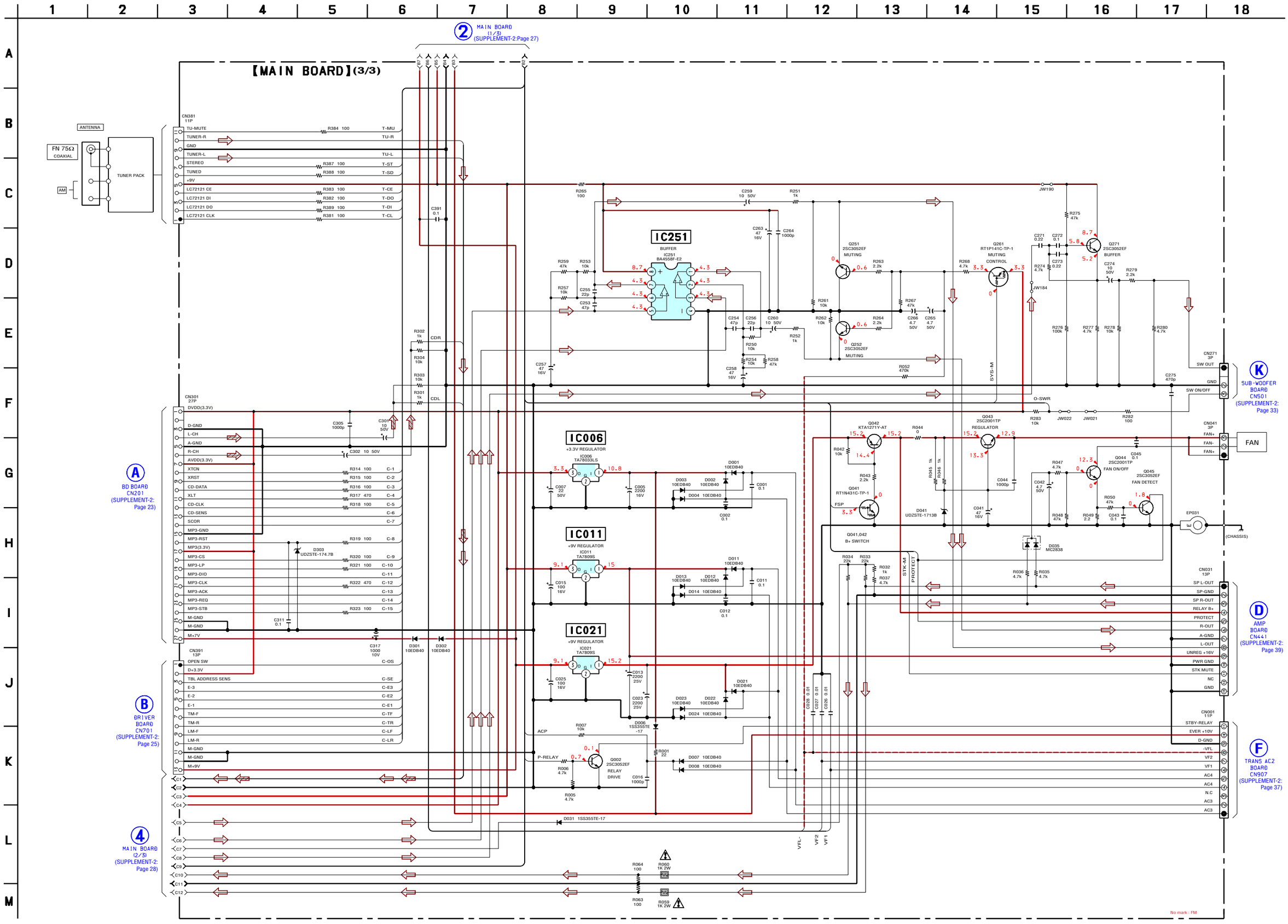


4-11. SCHEMATIC DIAGRAM – MAIN SECTION (2/3) –

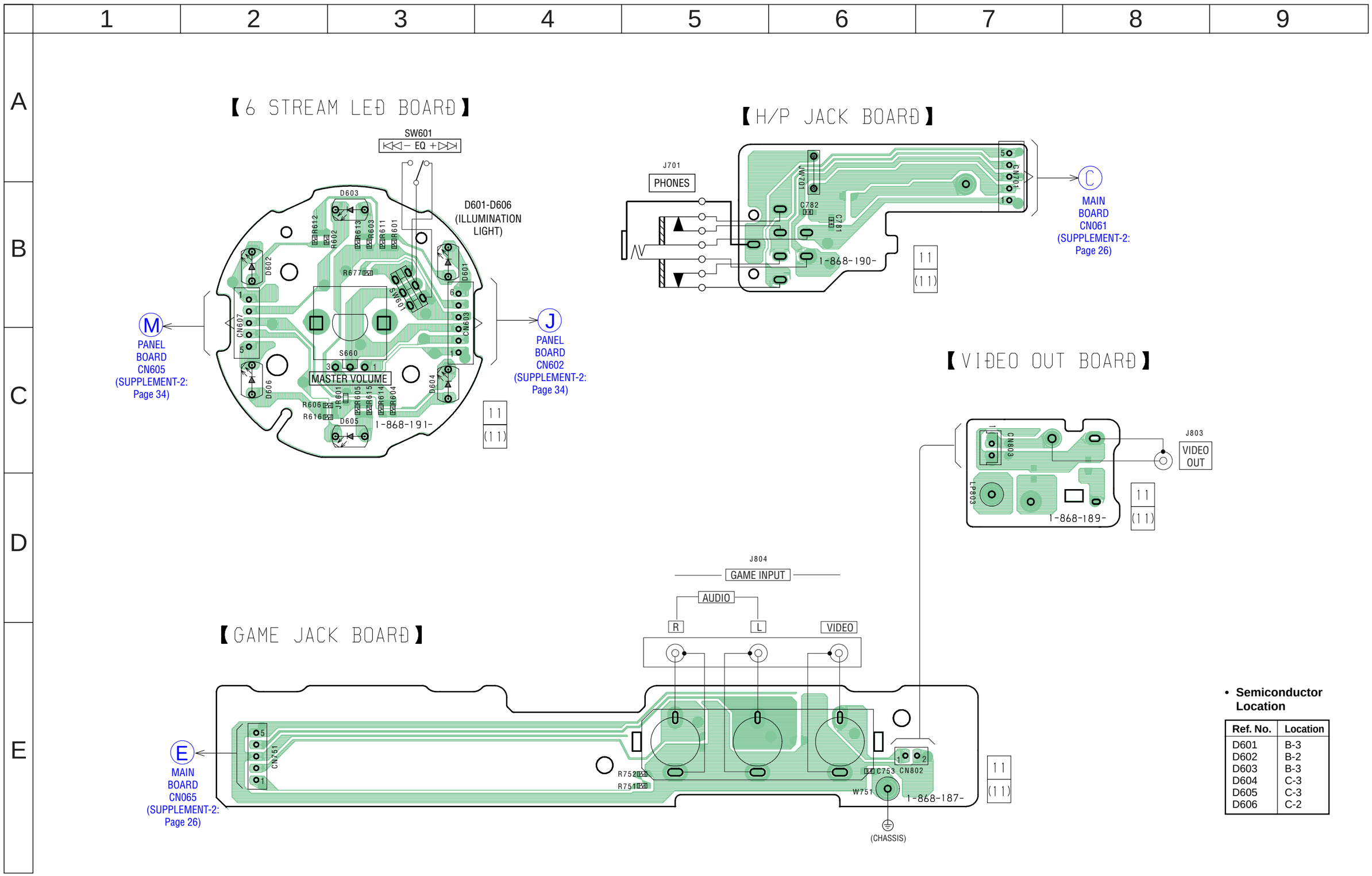
• See page 40 for Waveform. • See page 43 for IC Block Diagram.



4-12. SCHEMATIC DIAGRAM – MAIN SECTION (3/3) –



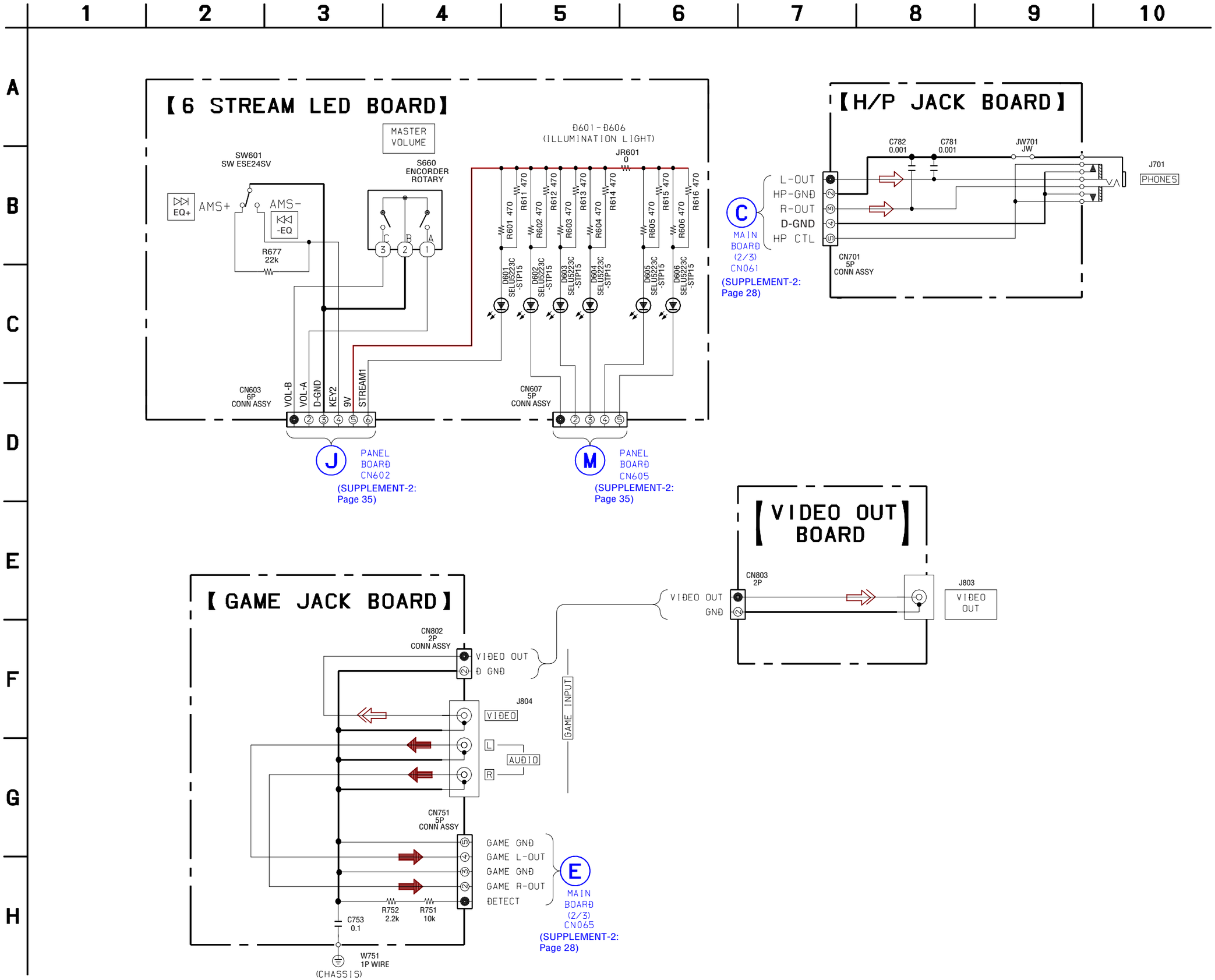
4-13. PRINTED WIRING BOARD – PANEL COMB SECTION – • See page 17 for Circuit Boards Location. :Uses unleaded solder.



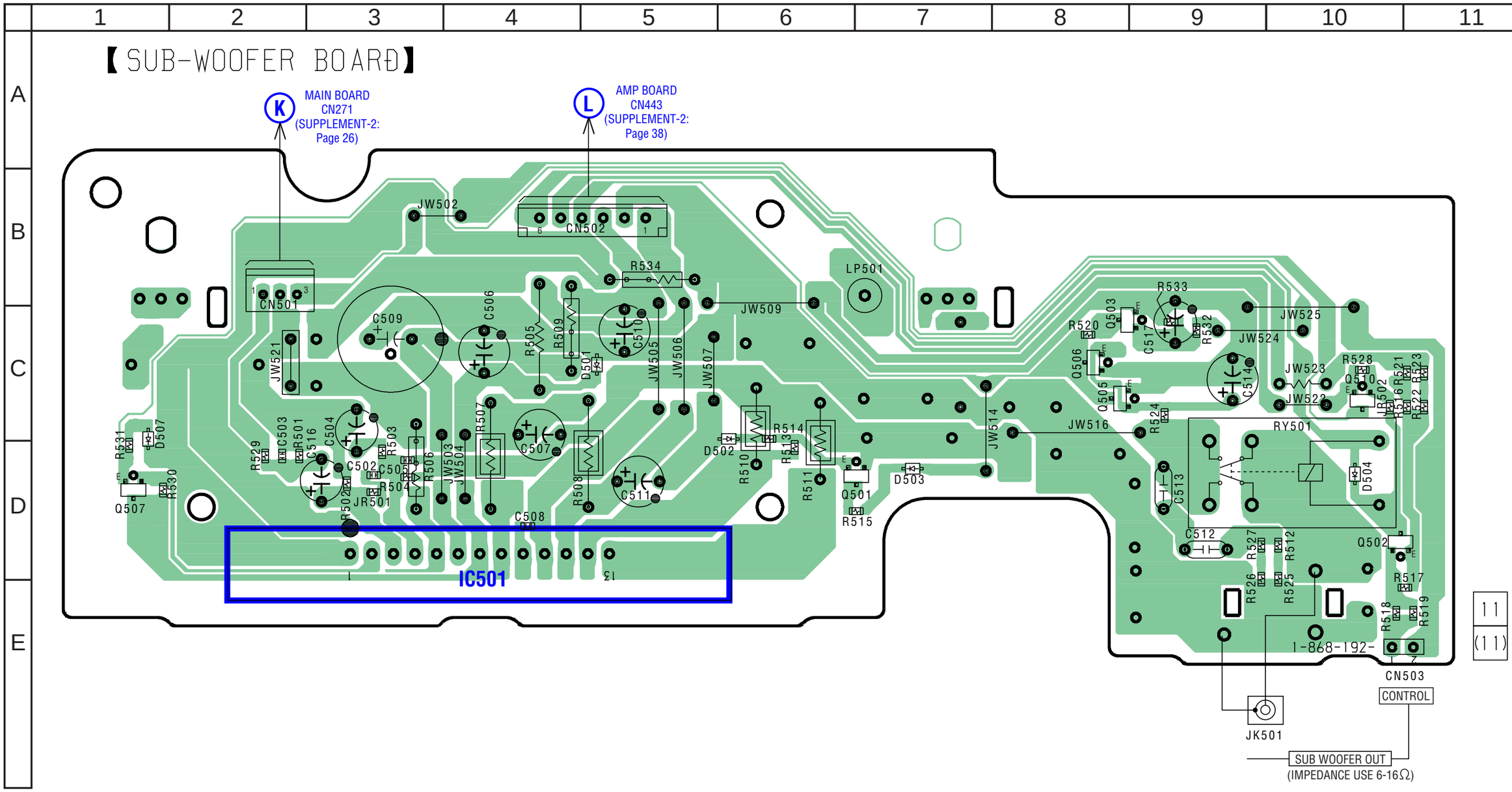
- **Semiconductor Location**

Ref. No.	Location
D601	B-3
D602	B-2
D603	B-3
D604	C-3
D605	C-3
D606	C-2

4-14. SCHEMATIC DIAGRAM – PANEL COMB SECTION –



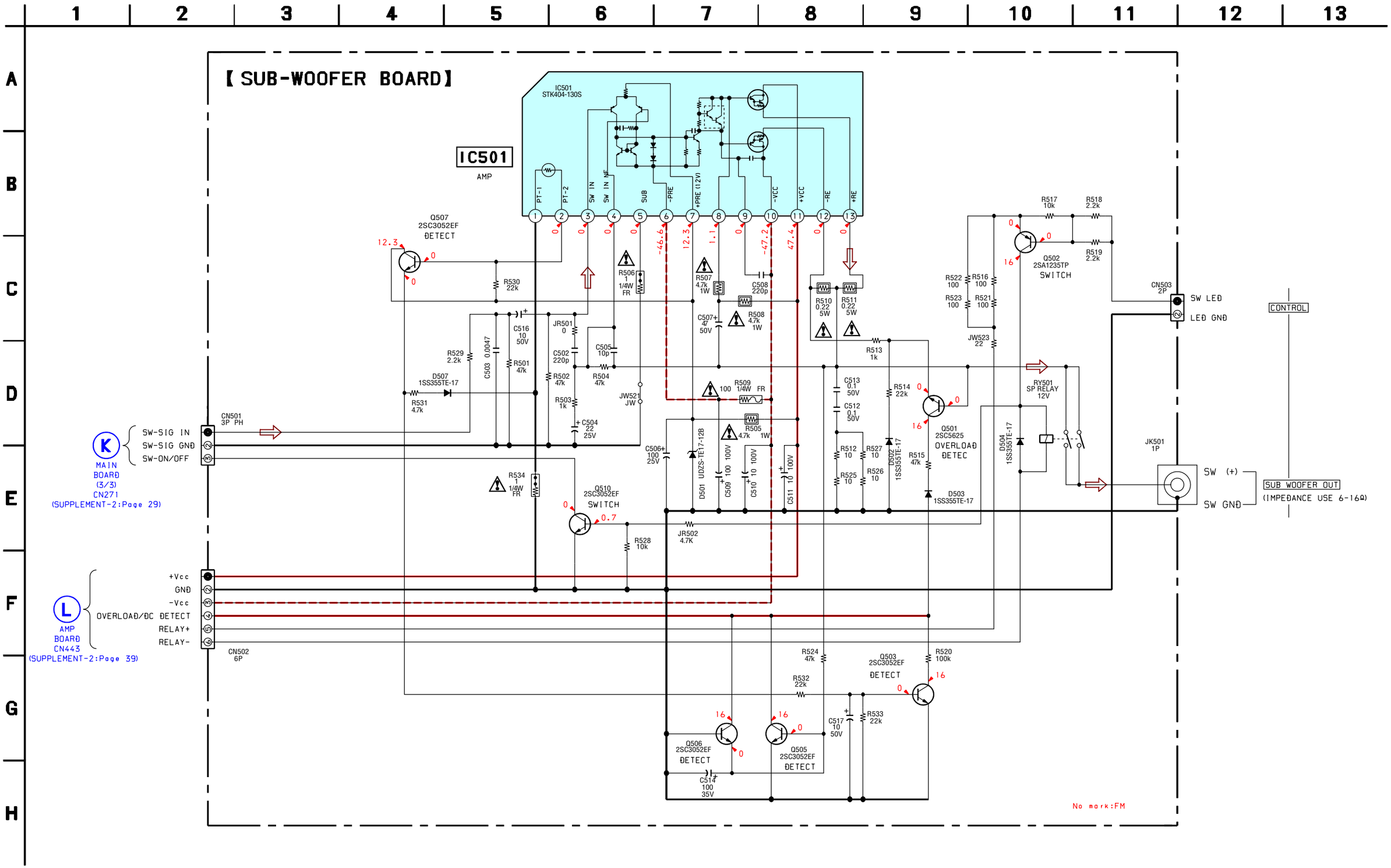
4-15. PRINTED WIRING BOARD – SUB-WOOFER SECTION – • See page 17 for Circuit Boards Location. :Uses unleaded solder.



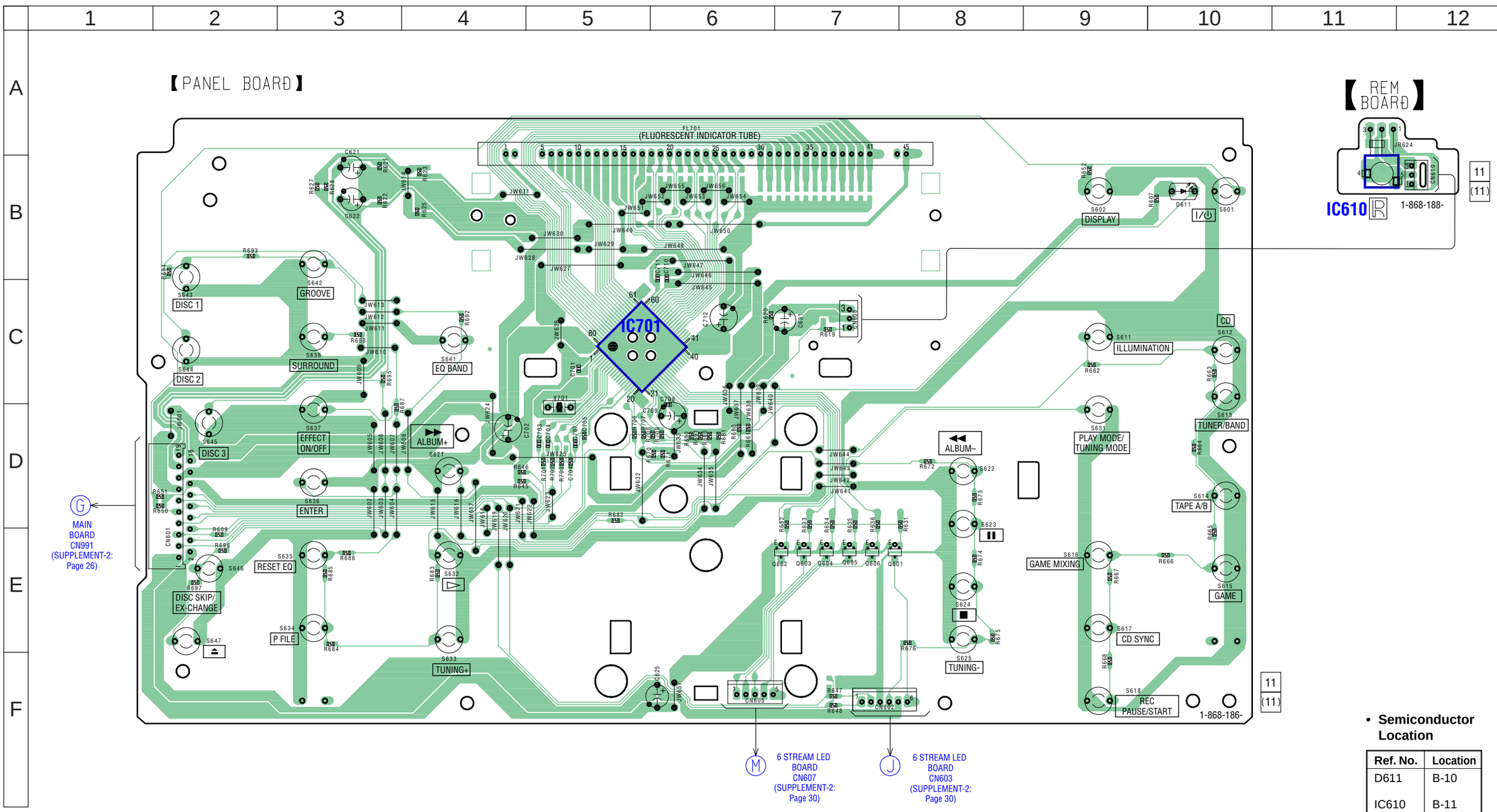
- **Semiconductor Location**

Ref. No.	Location
D501	C-5
D502	D-5
D503	D-7
D504	D-10
D507	D-1
IC501	D-4
Q501	D-6
Q502	D-10
Q503	C-8
Q505	C-8
Q506	C-8
Q507	D-1
Q510	C-10

4-16. SCHEMATIC DIAGRAM – SUB-WOOFER SECTION –



4-17. PRINTED WIRING BOARD – PANEL SECTION – • See page 17 for Circuit Boards Location. :Uses unleaded solder.

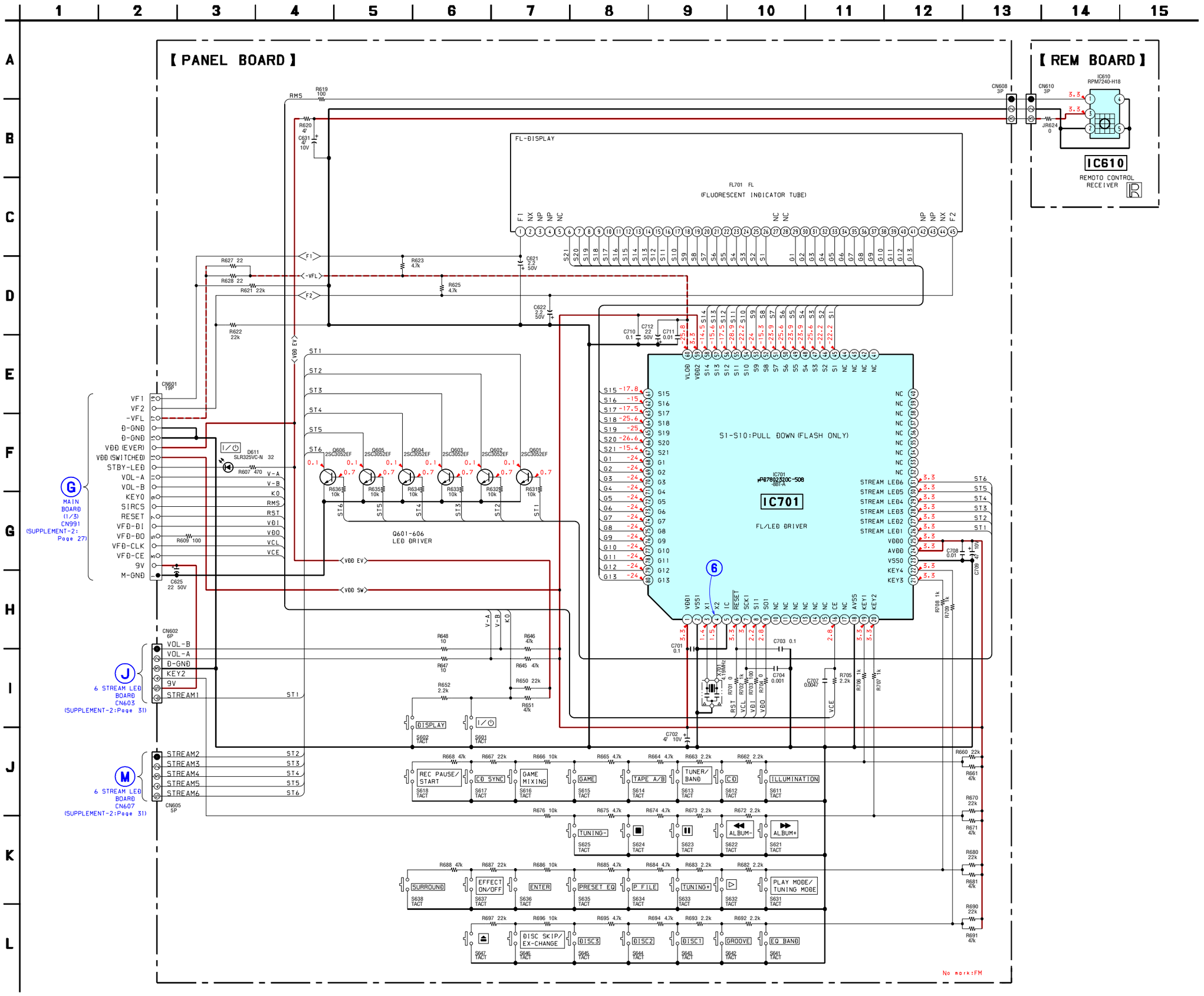


- **Semiconductor Location**

Ref. No.	Location
D611	B-10
IC610	B-11
IC701	C-5
Q601	E-7
Q602	E-7
Q603	E-7
Q604	E-7
Q605	E-7
Q606	E-7

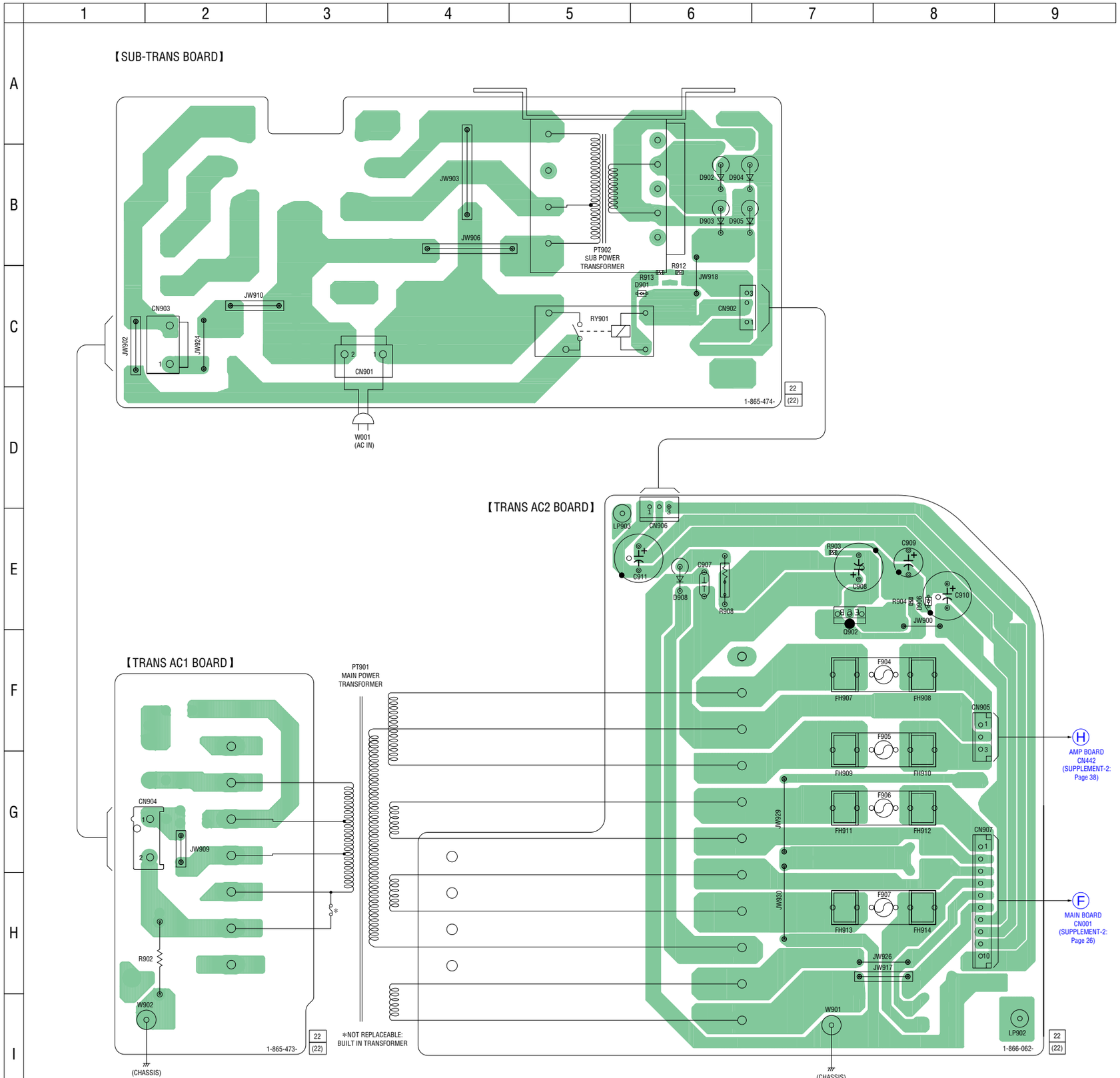
4-18. SCHEMATIC DIAGRAM – PANEL SECTION –

• See page 40 for Waveform. • See page 47 for IC Pin Function Description.



4-19. PRINTED WIRING BOARD – TRANS SECTION –

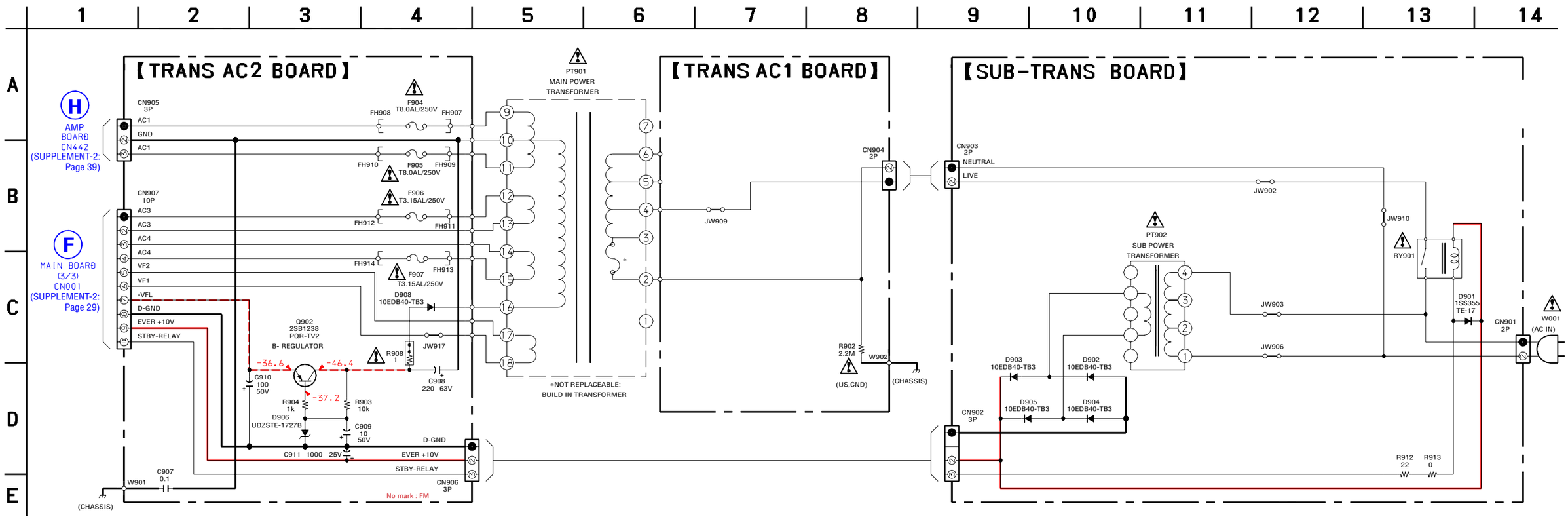
• See page 17 for Circuit Boards Location. :Uses unleaded solder.



• **Semiconductor Location**

Ref. No.	Location
D901	C-6
D902	B-6
D903	B-6
D904	B-6
D905	B-6
D906	E-8
D908	E-6
Q902	E-7

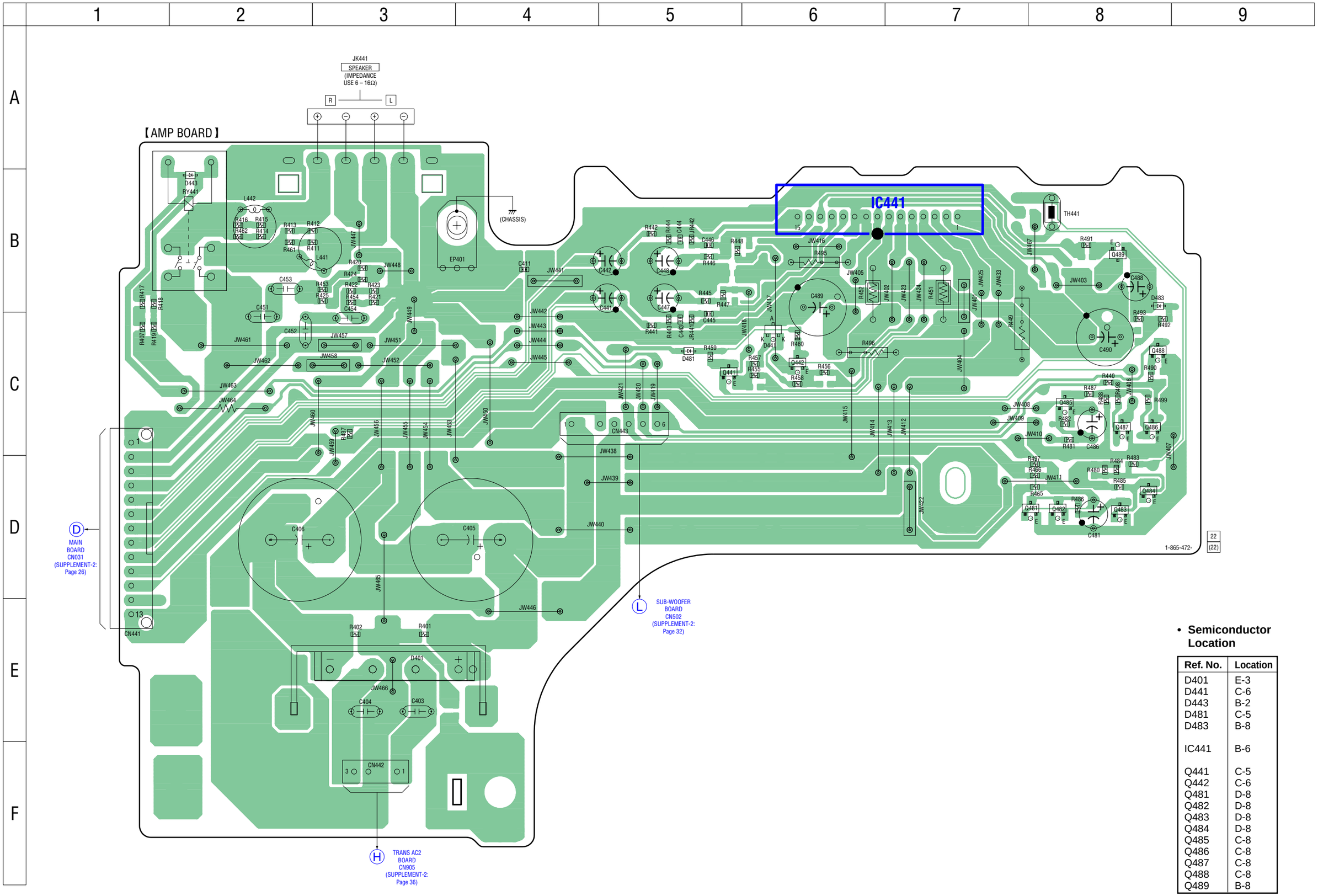
4-20. SCHEMATIC DIAGRAM – TRANS SECTION –



4-21. PRINTED WIRING BOARD – AMP SECTION –

• See page 17 for Circuit Boards Location.

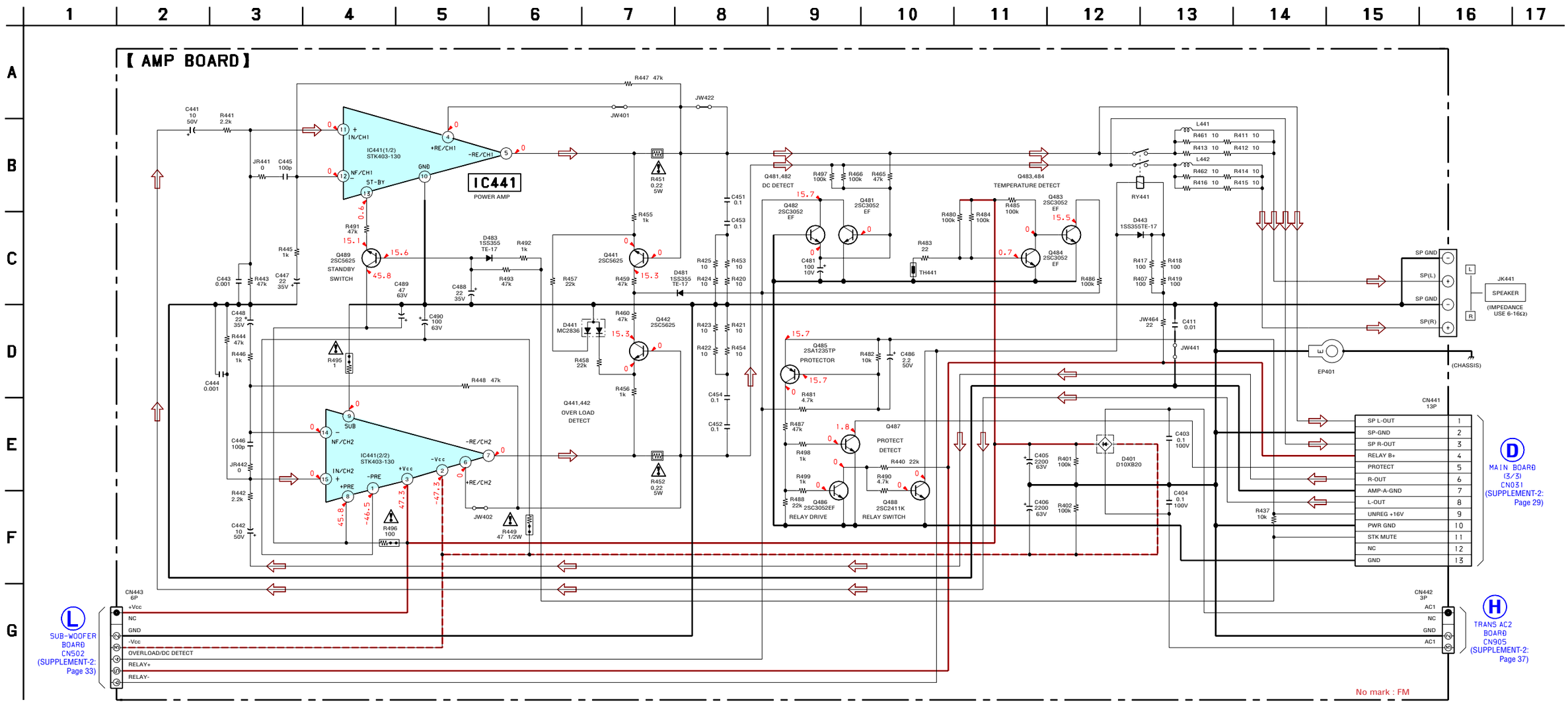
:Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location
D401	E-3
D441	C-6
D443	B-2
D481	C-5
D483	B-8
IC441	B-6
Q441	C-5
Q442	C-6
Q481	D-8
Q482	D-8
Q483	D-8
Q484	D-8
Q485	C-8
Q486	C-8
Q487	C-8
Q488	C-8
Q489	B-8

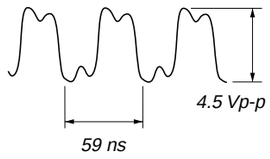
4-22. SCHEMATIC DIAGRAM – AMP SECTION –



- **Waveforms**

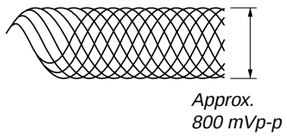
– BD Board –

① **IC101 ㊼ (XTAO)**



1 V/DIV, 20 ns/DIV

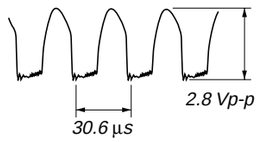
② **IC101 ㊶ (RFACO)**



0.2 V/DIV, 0.5 µs/DIV

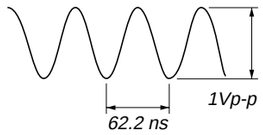
– MAIN Board –

③ **IC901 ⑪ (XCOUT (32.768KHZ))**



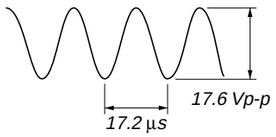
1 V/DIV, 10 µs/DIV

④ **IC901 ⑬ (XOUT (16MHZ))**



500 mV/DIV, 20 ns/DIV

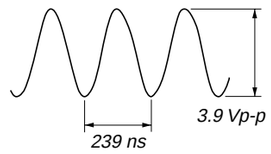
⑤ **Q201 (Collector) (REC mode)**



500 mV/DIV, 10 µs/DIV

– PANEL Board –

⑥ **IC701 ④ (X2)**

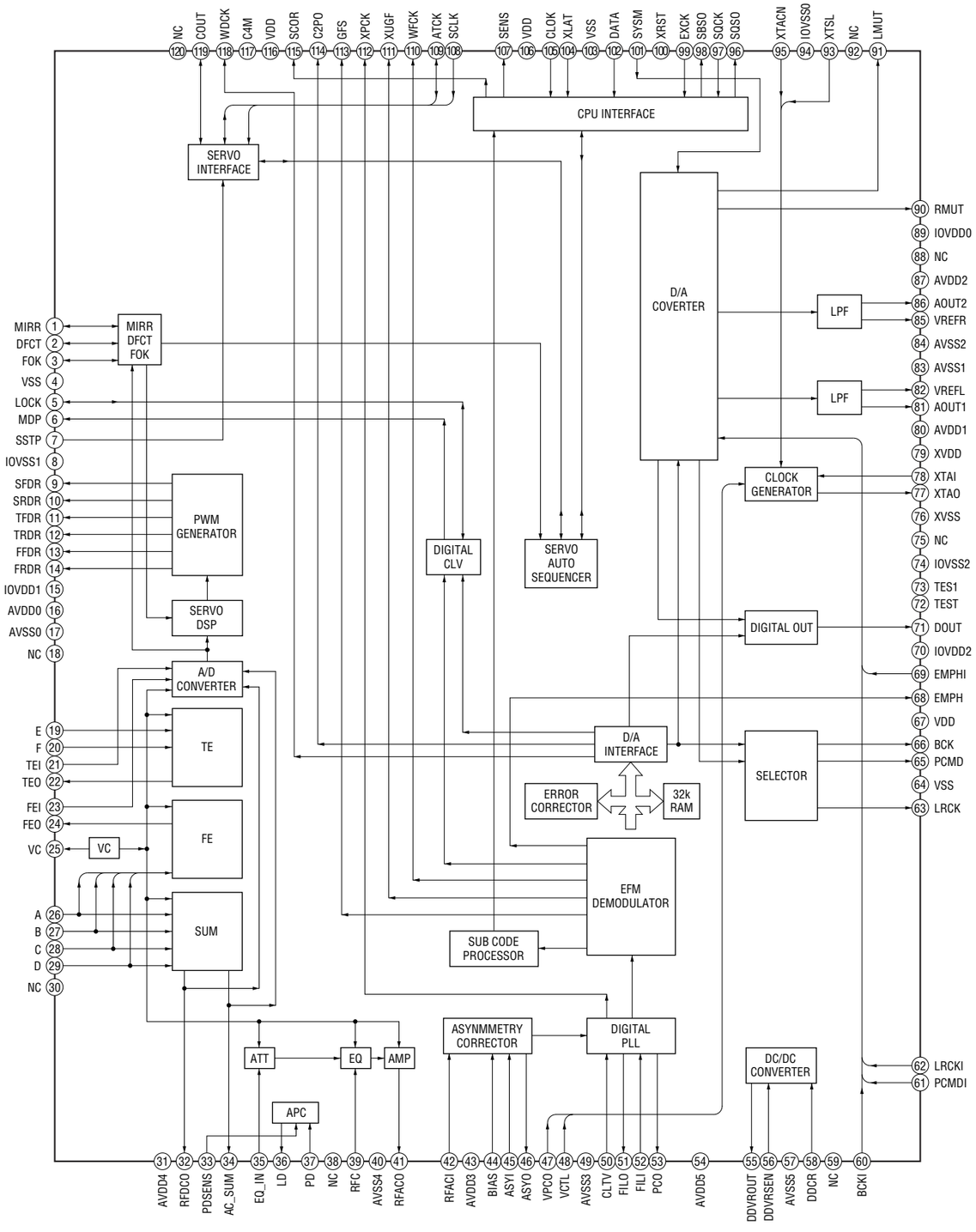


1 V/DIV, 100 ns/DIV

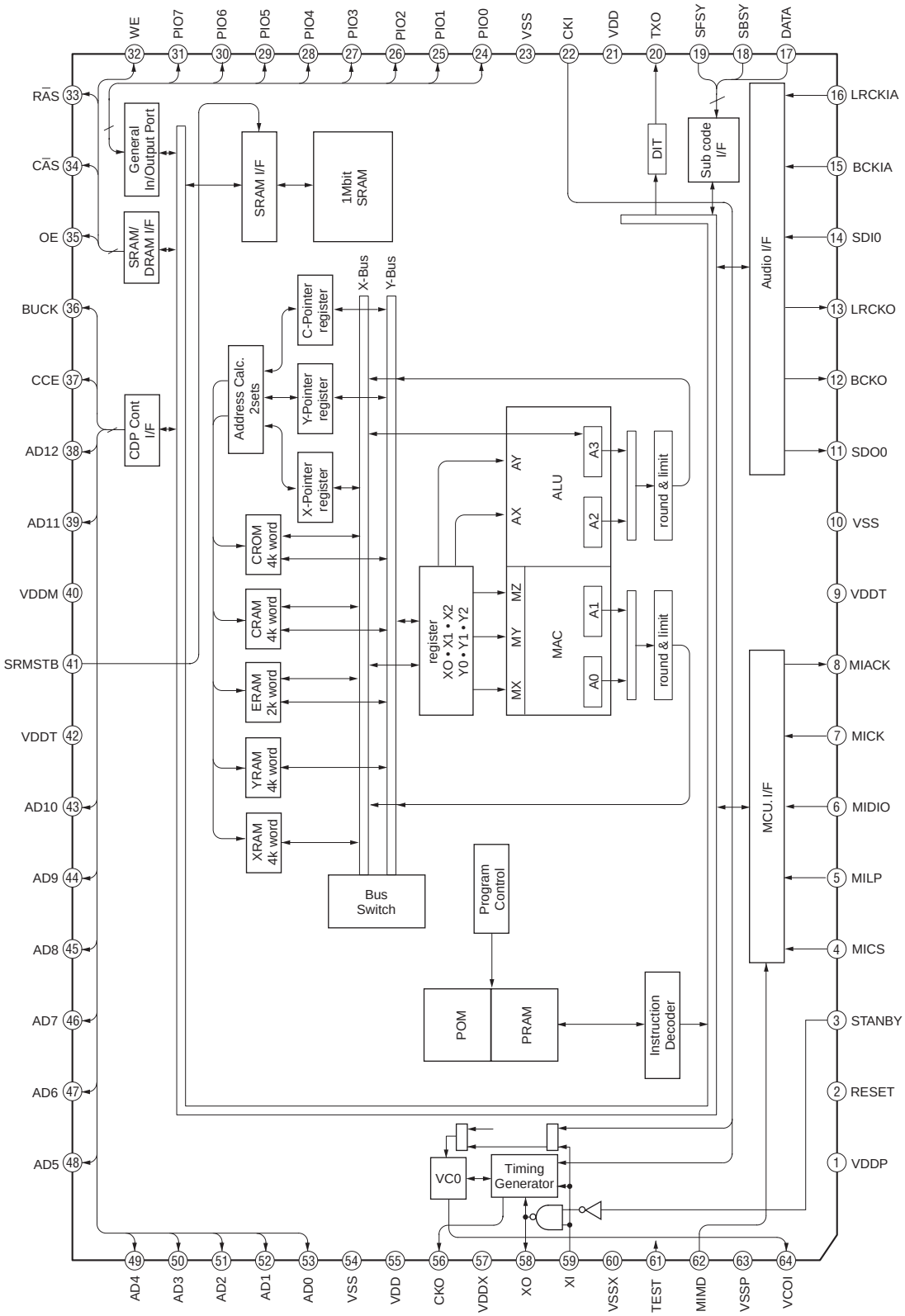
- **IC Block Diagrams**

– BD Board –

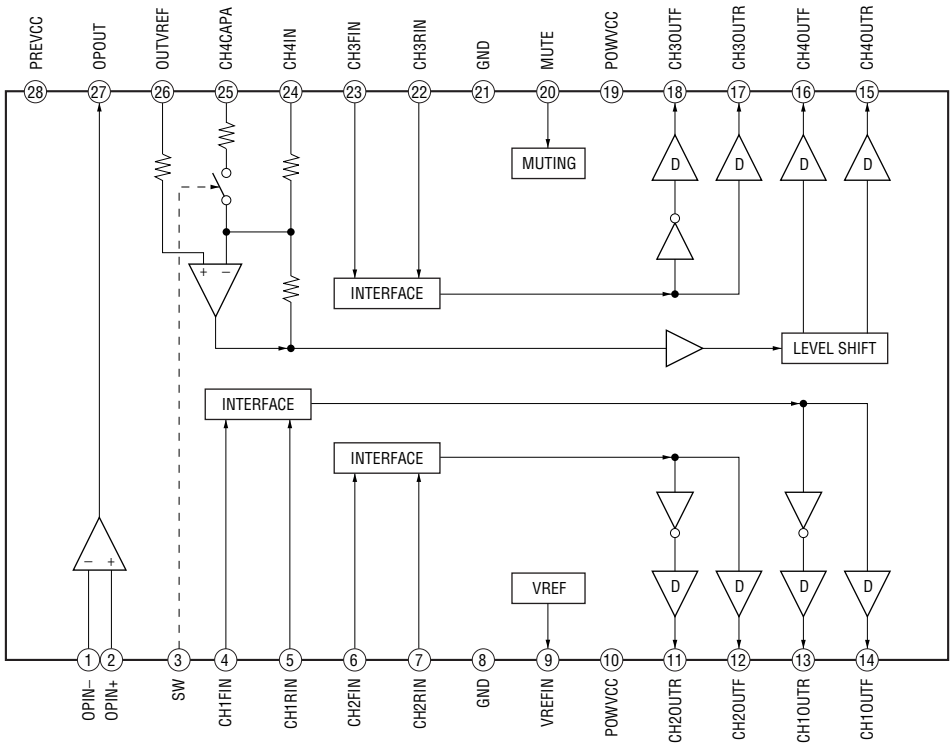
IC101 CXD3059AR



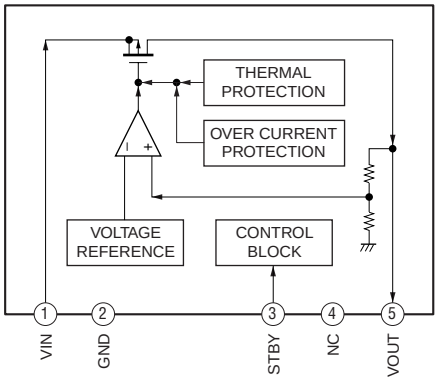
IC301 TC94A34FG-002



IC251 BA5947FM-E2

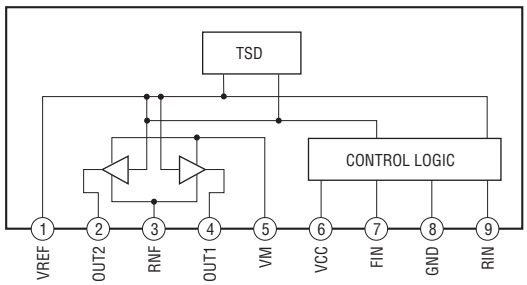


IC303 BH15FB1WG



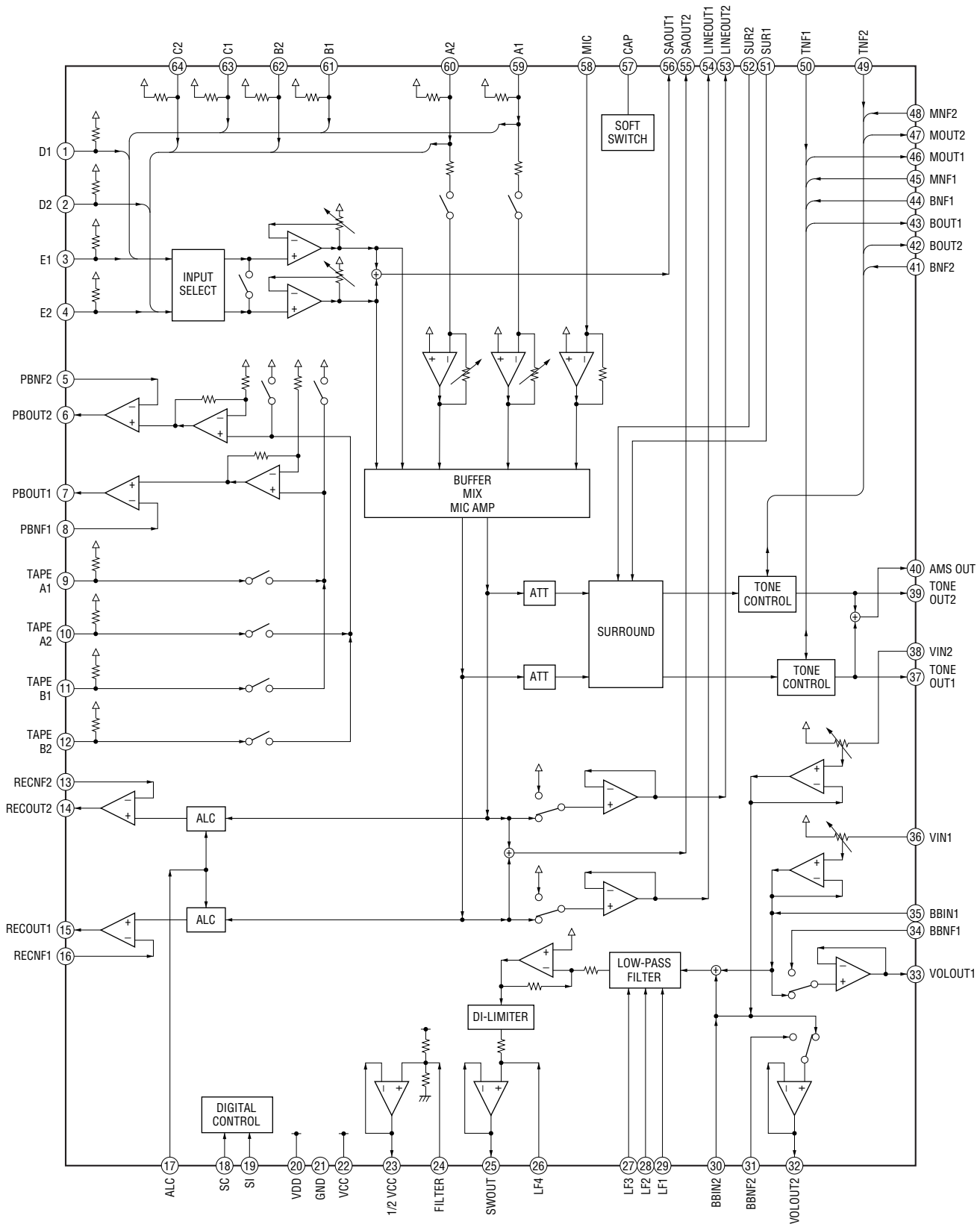
– DRIVER Board –

IC701, 712 BA6956AN



– MAIN Board –

IC101 BD3401KS2



• **IC Pin Function Description**

MAIN BOARD IC901 M30302MCP-A06FPU0 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	O-BD3401-DATA	O	Serial data output to the electrical volume
2	O-BD3401-CLK	O	Serial data transfer clock signal output to the electrical volume
3	O-VFD-RESET	O	System reset signal output to the FL/LED driver
4	O-VFD-CE	O	Chip enable signal output to the FL/LED driver
5	I-AC-CUT	I	AC power detection signal input terminal
6	I-VOL-A	I	Jog dial pulse input terminal
7	$\overline{\text{I-SIRCS-IN}}$	I	SIRCS signal input terminal
8	BYTE	I	Mode setting terminal (connected to ground)
9	CNVSS	I	Mode setting terminal Normally not used
10	XCIN (32.768KHZ)	I	Sub system clock input terminal (32.768 kHz)
11	XCOUT (32.768KHZ)	O	Sub system clock output terminal (32.768 kHz)
12	$\overline{\text{I-RESET}}$	I	System reset signal input from the reset signal generator "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
13	XOUT (16MHZ)	O	Main system clock output terminal (16 MHz)
14	VSS	-	Ground terminal
15	XIN (16MHZ)	I	Main system clock input terminal (16 MHz)
16	VCC1	-	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt signal input terminal (connected to +3.3V)
18	I-RDS-CLK	I	RDS data transfer clock signal input terminal (not used)
19	I-SCOR	I	Subcode Q sync (SCOR) input from the CD DSP
20	I-AC-PULSE	I	AC main power detection signal input terminal
21	I-VOL-B	I	Jog dial pulse input terminal
22	$\overline{\text{O-STBY-LED}}$	O	LED drive signal output terminal
23	$\overline{\text{O-SYS-MUTE}}$	O	Muting on/off control signal output terminal
24	O-STK-MUTE	O	Standby signal output to the power amplifier (for front speaker output)
25	I-SWR	I	Sub woofer relay on/off signal input
26	O-POWER-RELAY	O	Relay drive signal output for main power
27	O-FRONT-SP-RELAY	O	Power on/off control signal output for the fan motor and amplifier section
28	O-MP3-CLK	O	Serial data transfer clock signal output to the MP3 decoder
29	I-MP3-DI	I	Serial data input from the MP3 decoder
30	O-MP3-DATA	O	Serial data output to the MP3 decoder
31	O-CD-DATA	O	Serial data output to the CD DSP
32	I-CD-SENS	I	Internal status (SENSE) input from the CD DSP
33	O-CD-CLK	O	Serial data transfer clock signal output to the CD DSP
34	O-XTCN	O	Oscillator control signal output to the CD DSP
35	O-VFD-DATA	O	Serial data output to the FL/LED driver
36	I-VFD-DATA	I	Serial data input from the FL/LED driver
37	O-VFD-CLK	O	Serial data transfer clock signal output to the FL/LED driver
38	O-MP3-RESET	O	System reset signal output to the MP3 decoder
39	O-MP3-CS	O	Chip select signal output to the MP3 decoder
40	I-MP3-ACK	I	Acknowledge signal input from the MP3 decoder
41	xHOLD	I/O	Connected to ground

Pin No.	Pin Name	I/O	Description
42	O-MP3-STB	O	Standby signal output to the MP3 decoder
43	I-MP3-REQ	I	Data send request signal input from the MP3 decoder
44	O-MP3-LP	O	Latch pulse signal output to the MP3 decoder
45	O-XLT	O	Latch pulse signal output to the CD DSP
46	xWR	I/O	Connected to +3.3V
47	O-XRST	O	System reset signal output to the CD DSP and motor/coil driver
48, 49	O-LM-R, O-LM-F	O	Loading motor control signal output terminal
50, 51	O-TM-R, O-TM-F	O	Table motor control signal output terminal
52 to 54	I-E-1 to I-E-3	I	Disc tray address sensor (rotary encoder) input terminal
55	I-CD NUMBER SENS	I	Table address sensor input terminal
56	I-OPEN-SW	I	Disc tray open/close detection switch input terminal
57	O-CDG-MUTE-DATA	O	Muting control signal output to the CD graphics decoder (not used)
58	O-CDG-RST	O	System reset signal output to the CD graphics decoder (not used)
59	O-CDG-BGC	O	NTSC/PAL switching control signal output terminal (not used)
60	I-CDG-DET	I	CD-G detection signal input terminal (not used)
61	O-CDG-POWER	O	Power on/off control signal output for CD-G section (not used)
62	VCC2	-	Power supply terminal (+3.3V)
63	O-VMUTE	O	Video muting on/off control signal output terminal (not used)
64	VSS	-	Ground terminal
65	O-LC72121-CLK	O	Serial data transfer clock signal output to the FM/AM tuner pack
66	I-LC72121-DI	I	Serial data input from the FM/AM tuner pack
67	O-LC72121-DO	O	Serial data output to the FM/AM tuner pack
68	O-LC72121-CE	O	Chip enable signal output to the FM/AM tuner pack
69	$\overline{\text{I-TUNED}}$	I	Tuning detection signal input from the FM/AM tuner pack
70	$\overline{\text{I-STEREO}}$	I	FM stereo detection signal input from the FM/AM tuner pack
71	O-ST-MUTE	O	Muting on/off control signal output to the FM/AM tuner pack
72	I-RDS-DATA	I	RDS data input from the terminal (not used)
73	O-MODEL1	O	Setting terminal for the destination and model type
74	I-KEY0	I	Front panel key input terminal (A/D input)
75 to 80	O-MODEL2 to O-MODEL7	O	Setting terminal for the destination and model type (not used)
81	I-HP/AUDIO IN	I	Headphone plug and audio in plug insert detection signal input
82	I-MIC	I	MIC plug insert detection signal input terminal (connected to ground)
83	I-REAL-A	I	Deck-A tape reel rotating detection signal input terminal
84	I-REAL-B	I	Deck-B tape reel rotating detection signal input terminal
85	O-MOTOR	O	Capstan/reel motor drive signal output terminal
86	O-A-SOL	O	Deck-A plunger drive signal output terminal
87	O-B-SOL	O	Deck-B plunger drive signal output terminal
88	I-TAPE-A-STAT	I	Deck-A cassette detection signal, deck-A mode detection signal and recording (reverse direction) detection signal input terminal (A/D input)
89	I-TAPE-B-STAT	I	Deck-B cassette detection signal, deck-B mode detection signal and recording (forward direction) detection signal input terminal (A/D input)
90	O-REC/PB	O	REC/PB switching control signal output terminal
91	O-BIAS	O	REC bias on/off control signal output terminal

Pin No.	Pin Name	I/O	Description
92	I-TAPE-AMS	I	Auto music sensor detection signal input from the electrical volume "L": music is present, "H": music is not present
93	I-STREAM	I	Audio signal input for stream LED (A/D input)
94	I-VACS	I	VACS signal input terminal (A/D input)
95	I-PROTECTOR	I	Protector operating detection signal input terminal
96	AVSS	-	Ground terminal
97	I-POWER, DISPLAY	I	Front panel key input terminal (A/D input)
98	VREF	I	Reference voltage input terminal (connected to +3.3V)
99	AVCC	-	Power supply terminal (+3.3V)
100	NC	O	Not used

PANEL BOARD IC701 μPD780232GC-508-8BT-A (FL/LED DRIVER)

Pin No.	Pin Name	I/O	Description
1	VDD1	-	Power supply terminal (+3.3V)
2	VSS1	-	Ground terminal
3	X1	I	System clock input terminal (4.19 MHz)
4	X2	O	System clock output terminal (4.19 MHz)
5	IC	I	Not used
6	$\overline{\text{RESET}}$	I	System reset signal input from the system controller "L": reset
7	SCK1	I	Serial data transfer clock signal input from the system controller
8	SI1	I	Serial data input from the system controller
9	SO1	O	Serial data output to the system controller
10 to 15	NC	I	Not used
16	CE	I	Chip select signal input from the system controller
17	NC	I	Not used
18	AVSS	-	Ground terminal
19 to 22	KEY1 to KEY4	I	Front panel key input terminal (A/D input)
23	VSS0	-	Ground terminal
24	AVDD	-	Power supply terminal (+5V)
25	VDD0	-	Power supply terminal (+5V)
26 to 31	STREAM LED1 to STREAM LED6	O	LED drive signal output terminal
32	SW LED	O	LED drive signal output terminal
33 to 44	NC	I	Not used
45 to 58	S1 to S14	O	Segment drive signal output to the fluorescent indicator tube
59	VDD2	-	Power supply terminal (+5V)
60	VLOD	-	Power supply terminal (for fluorescent indicator tube drive)
61 to 67	S15 to S21	O	Segment drive signal output to the fluorescent indicator tube
68 to 80	G1 to G13	O	Grid drive signal output to the fluorescent indicator tube

SECTION 5
EXPLODED VIEWS

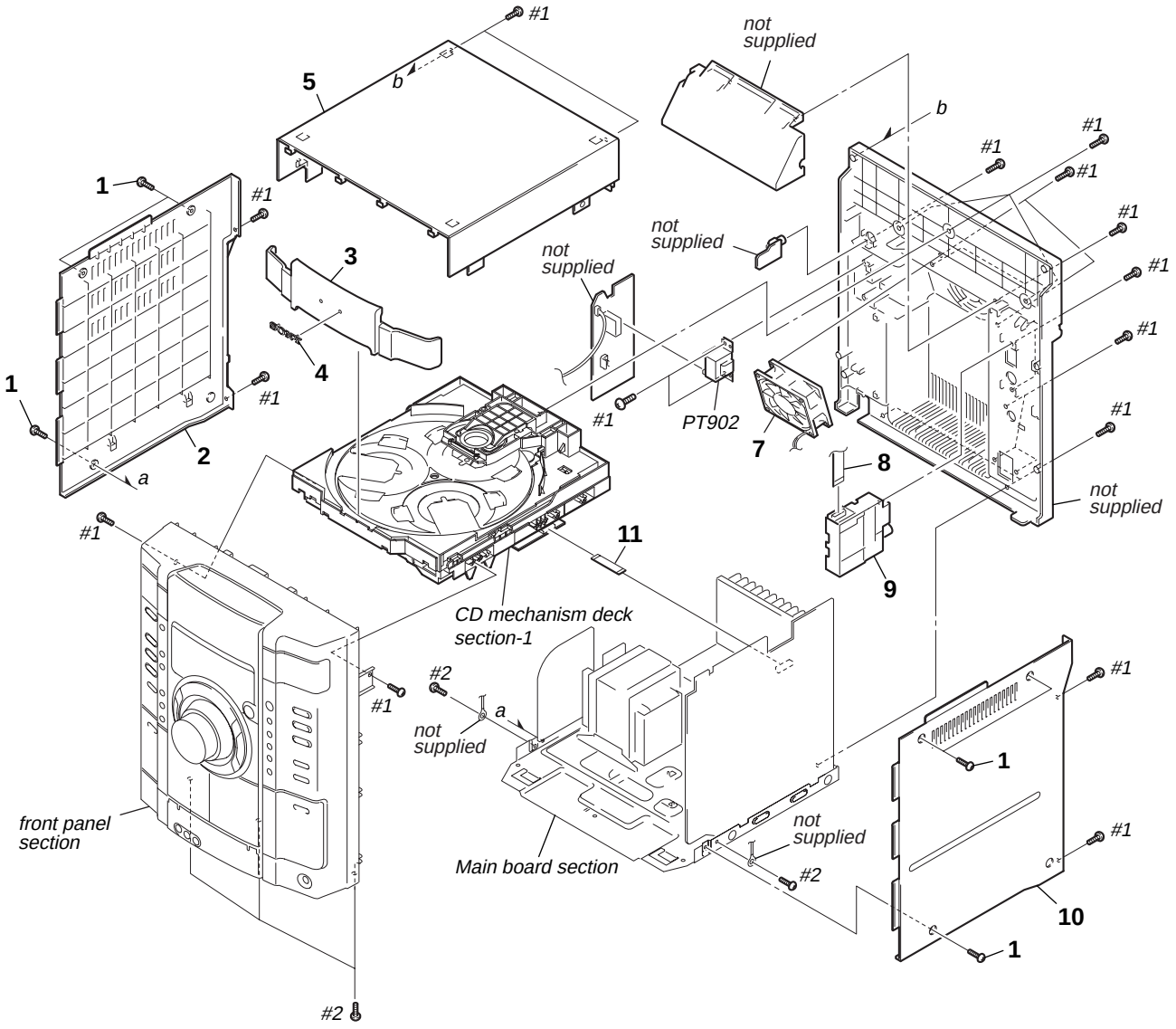
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  CND : Canadian model.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

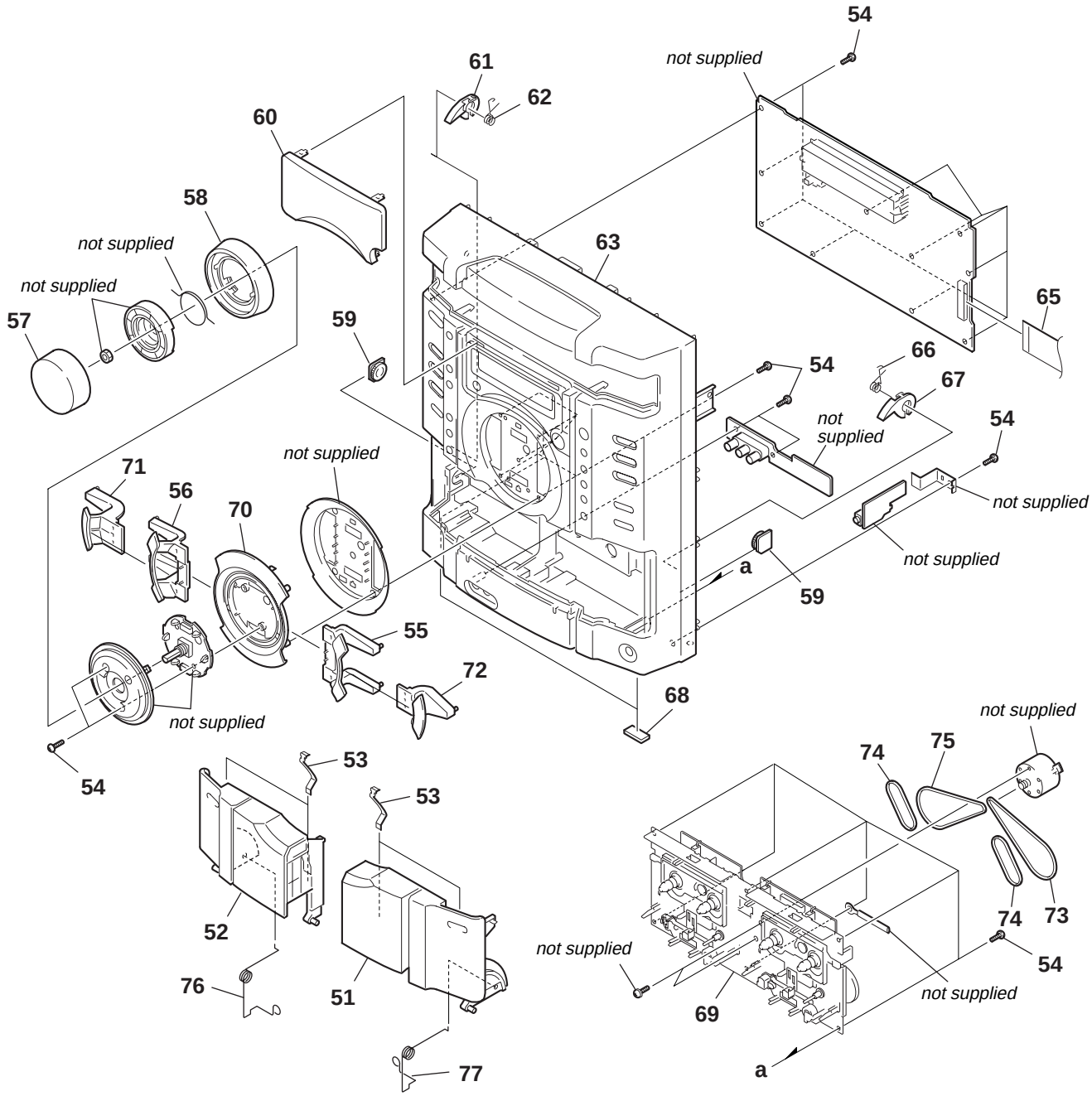
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	3-363-099-32	SCREW (CASE 3 TP2)	
2	4-245-183-61	CASE (SIDE-L) (US)	
2	4-245-183-71	CASE (SIDE-L) (CND)	
3	4-252-196-21	DOOR, CD	
4	3-038-018-01	EMBLEM, SONY	
5	4-244-849-61	CASE (TOP) (US)	
5	4-244-849-71	CASE (TOP) (CND)	
7	1-787-319-11	FAN, DC	
8	1-828-963-11	WIRE (FLAT TYPE) (11 CORE)	
9	1-693-631-31	TUNER (FM/AM)	
10	4-245-184-61	CASE (SIDE-R) (US)	
10	4-245-184-71	CASE (SIDE-R) (CND)	
11	1-828-970-11	WIRE (FLAT TYPE) (13 CORE)	
⚠PT902	1-443-614-11	TRANSFORMER, POWER	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

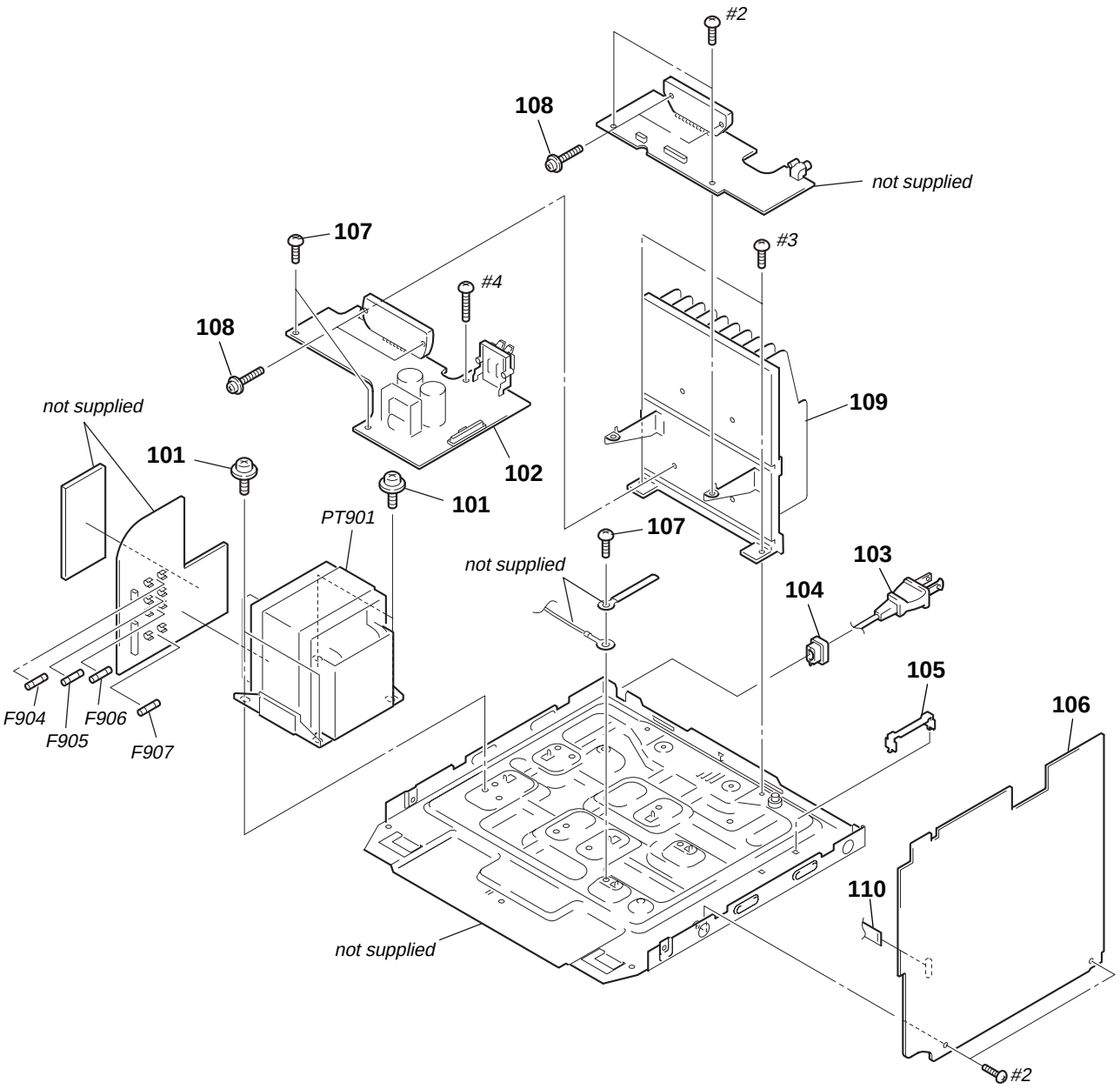
5-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-252-202-01	DOOR (B), CASS	
52	4-252-201-01	DOOR (A), CASS	
53	4-238-631-11	TAPE SPRING	
54	4-951-620-01	SCREW (2.6X8), +BVTP	
55	4-252-207-11	BUTTON, FF/ALBUM+	
56	4-252-208-11	BUTTON, FR/ALBUM–	
57	4-252-214-01	KNOB, VOLUME	
58	X-4956-295-1	RING ASSY, KNOB	
59	4-224-104-41	DAMPER	
60	4-252-198-01	WINDOW, DISPLAY	
61	4-231-824-01	CAM (A), HEART	
62	4-231-836-01	SPRING (HEART CAM-A)	
63	4-252-195-21	PANEL, FRONT (US)	

Ref. No.	Part No.	Description	Remark
63	4-252-195-31	PANEL, FRONT (CND)	
65	1-829-003-11	WIRE (FLAT TYPE) (19 CORE)	
66	4-231-841-01	SPRING (HEART CAM-B)	
67	4-231-825-01	CAM (B), HEART	
68	4-225-252-01	CUSHION (FOOT)	
69	1-796-485-51	DECK, MECHANICAL (CWM43FF-05)	
70	4-252-200-01	BUTTON COVER	
71	4-252-206-01	BUTTON, STOP	
72	4-252-205-01	BUTTON, PLAY	
73	2-657-155-01	BELT (BR)	
74	4-235-777-01	BELT (FR)	
75	4-243-609-01	BELT (AF)	
76	4-252-221-01	SPRING (A), CASS DOOR	

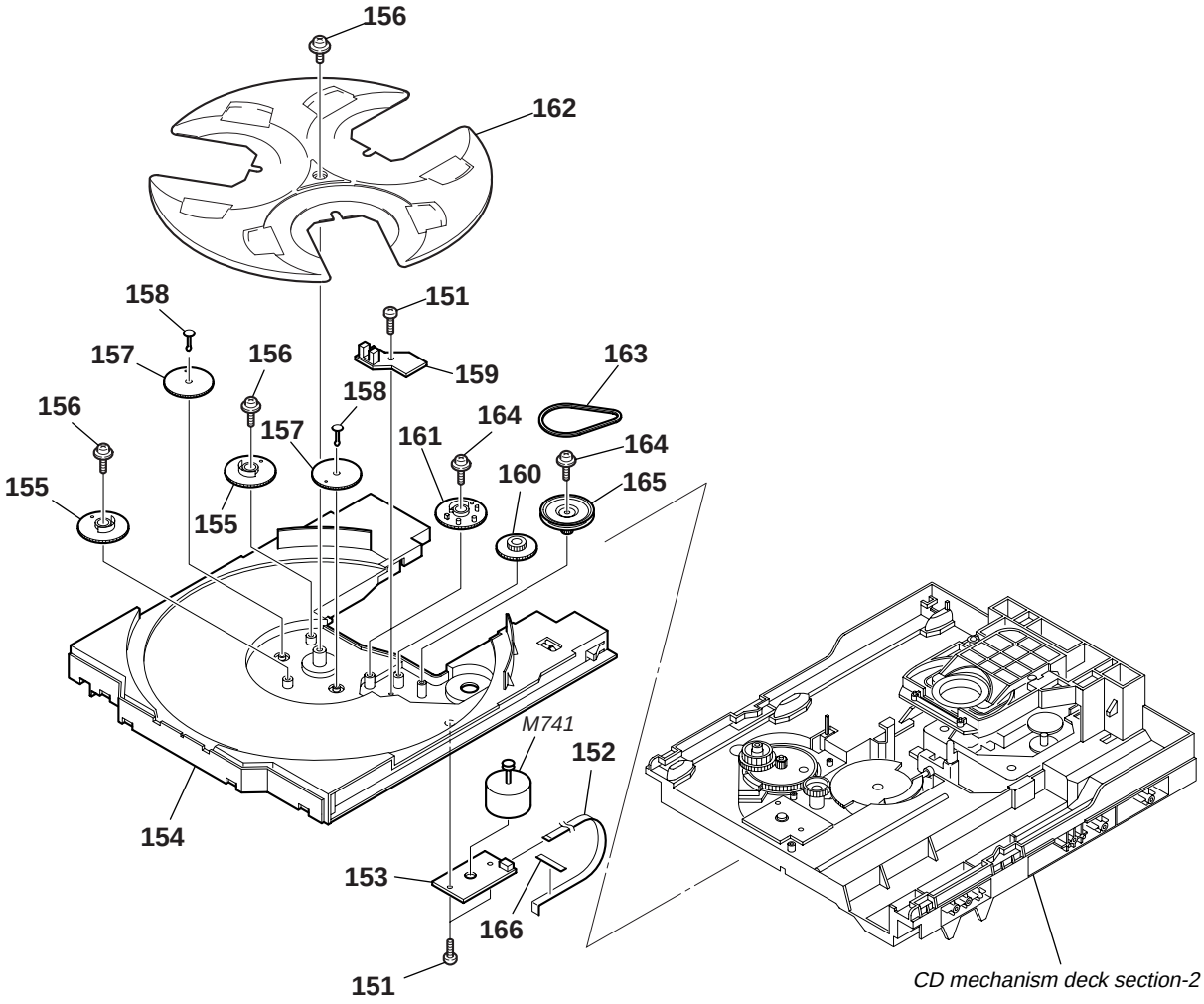
5-3. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
101	4-900-386-01	SCREW	
102	A-1138-207-A	AMP BOARD, COMPLETE	
⚠103	1-830-190-11	CORD, POWER	
104	3-703-244-00	BUSHING (2104), CORD	
105	4-988-533-01	HOLDER, PWB	
106	A-1138-198-A	MAIN BOARD, COMPLETE	
107	3-254-146-01	SCREW (B3), (+) BV TAPPING	
108	3-905-609-41	SCREW (TRANSISTOR)	
109	2-549-972-01	HEAT SINK (H)	
110	1-828-973-11	WIRE (FLAT TYPE) (13 CORE)	

Ref. No.	Part No.	Description	Remark
⚠F904	1-533-949-33	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL/250V)	
⚠F905	1-533-949-33	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL/250V)	
⚠F906	1-532-465-33	FUSE (T3.15AL/250V)	
⚠F907	1-532-465-33	FUSE (T3.15AL/250V)	
⚠PT901	1-443-254-12	TRANSFORMER, POWER	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#3	7-685-881-09	SCREW +BVTT 4X8 (S)	
#4	7-685-649-79	SCREW +BVTP 3X14 TYPE2 IT-3 (CND)	

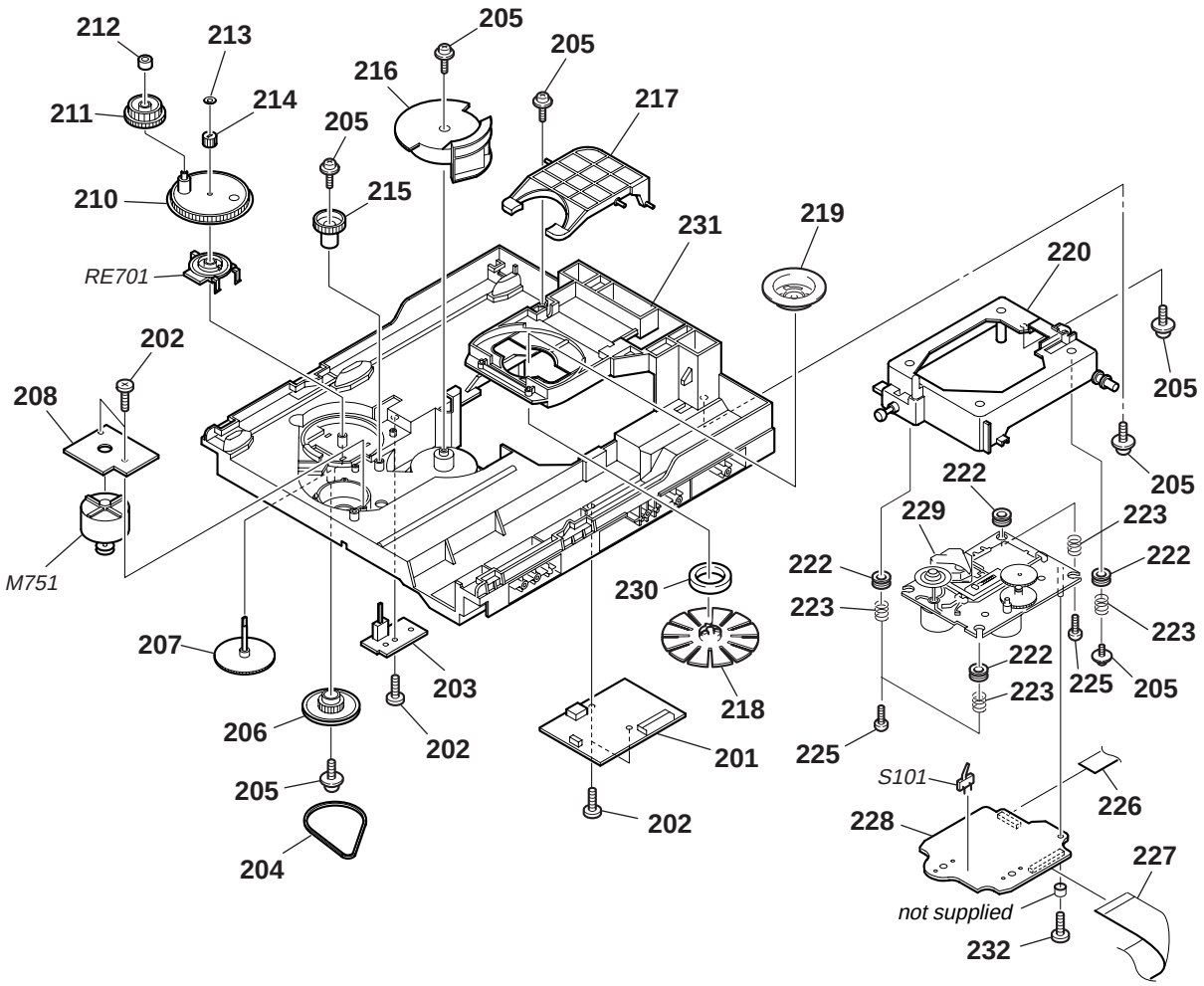
5-4. CD MECHANISM DECK SECION-1 (CDM74KF-K6BD81C)



Ref. No.	Part No.	Description	Remark
151	4-218-253-62	SCREW (M2.6), +BTTP	
152	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
153	1-687-134-12	MOTOR (TB) BOARD	
154	4-243-815-11	TABLE (LOADING)	
155	4-245-571-02	GEAR (STOPPER)	
156	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING	
157	4-245-570-01	GEAR (JOINT)	
158	4-245-572-01	BUSHING (GEAR)	
159	1-687-132-12	SENSOR BOARD	

Ref. No.	Part No.	Description	Remark
160	4-243-820-01	GEAR (TABLE)	
161	4-243-819-01	GEAR (GENEVA)	
162	4-243-816-11	TRAY	
163	4-243-823-11	BELT (TABLE)	
164	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
165	4-243-821-01	PULLEY (TABLE)	
166	3-231-598-01	SHEET (BA)	
M741	A-1108-965-A	TABLE MOTOR ASSY (TABLE)	

5-5. CD MECHANISM DECK SECION-2 (CDM74KF-K6BD81C)



Ref. No.	Part No.	Description	Remark
201	A-1103-756-A	DRIVER BOARD, COMPLETE	
202	4-218-253-52	SCREW (M2.6), +BTTP	
203	1-687-669-12	SW BOARD	
204	4-244-034-11	BELT (LOADING)	
205	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING	
206	4-225-844-01	GEAR (LOADING A)	
207	4-224-613-11	GEAR (SHAFT)	
208	1-687-133-12	MOTOR (LD) BOARD	
210	4-244-108-01	GEAR, SWING	
211	4-224-609-01	GEAR (LOADING C)	
212	4-224-608-01	COLLAR, SWING	
213	3-016-533-11	WASHER (FR), STOPPER	
214	4-224-611-01	GEAR (LOADING B)	
215	4-224-606-01	GEAR (RV)	
216	4-243-818-01	GEAR (U/D)	
217	4-243-822-02	LEVER (LIFTER)	

Ref. No.	Part No.	Description	Remark
218	X-2025-123-1	CHACKING PULLEY (KH) ASSY	
219	4-231-189-01	PULLEY (B), CHUCKING	
220	X-2055-190-1	HOLDER (213) ASSY	
222	4-227-549-11	INSULATOR	
223	4-227-045-31	SPRING (INSULATOR), COIL	
225	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
226	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
227	1-775-251-11	WIRE (FLAT TYPE) (27 CORE)	
228	A-1091-086-A	BD BOARD, COMPLETE	
⚠229	A-4735-357-A	OPTICAL PICK-UP (KSM-213DCP/C2NP)	
230	1-471-035-11	MAGNET ASSY	
231	4-243-817-22	CHASSIS	
232	3-087-053-01	+BVTP2.6 (3CR)	
M751	A-1108-966-A	LOADING MOTOR ASSY (LOADING)	
RE701	1-477-680-12	ENCODER, ROTARY	
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	

SECTION 6
ELECTRICAL PARTS LIST

6 STREAM LED | AMP

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. ., uPA. . : µPA. .,
  uPB. . : µPB. ., uPC. . : µPC. .,
  uPD. . : µPD. .

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
		6 STREAM LED BOARD			
		**********			
		< DIODE >			
D601	6-500-809-01	DIODE SELU5223C-STP15			
D602	6-500-809-01	DIODE SELU5223C-STP15			
D603	6-500-809-01	DIODE SELU5223C-STP15			
D604	6-500-809-01	DIODE SELU5223C-STP15			
D605	6-500-809-01	DIODE SELU5223C-STP15			
D606	6-500-809-01	DIODE SELU5223C-STP15			
		< RESISTOR >			
JR601	1-216-864-11	SHORT CHIP	0		
		< RESISTOR >			
R601	1-216-817-11	METAL CHIP	470	5%	1/10W
R602	1-216-817-11	METAL CHIP	470	5%	1/10W
R603	1-216-817-11	METAL CHIP	470	5%	1/10W
R604	1-216-817-11	METAL CHIP	470	5%	1/10W
R605	1-216-817-11	METAL CHIP	470	5%	1/10W
R606	1-216-817-11	METAL CHIP	470	5%	1/10W
R611	1-216-817-11	METAL CHIP	470	5%	1/10W
R612	1-216-817-11	METAL CHIP	470	5%	1/10W
R613	1-216-817-11	METAL CHIP	470	5%	1/10W
R614	1-216-817-11	METAL CHIP	470	5%	1/10W
R615	1-216-817-11	METAL CHIP	470	5%	1/10W
R616	1-216-817-11	METAL CHIP	470	5%	1/10W
R677	1-216-837-11	METAL CHIP	22K	5%	1/10W
		< SWITCH >			
S660	1-418-632-11	ENCODER, ROTARY (MASTER VOLUME)			
SW601	1-786-289-31	SWITCH, DETECTION (⏮ – EQ + ⏭)			
**********					
	A-1138-207-A	AMP BOARD, COMPLETE			
		**********			
	7-685-872-09	SCREW +BVTT 3X8 (S)			
		< CAPACITOR >			
C403	1-137-749-11	MYLAR	0.1uF		100V
C404	1-137-749-11	MYLAR	0.1uF		100V
C405	1-135-928-21	ELECT	2200uF	20%	63V
C406	1-135-928-21	ELECT	2200uF	20%	63V
C411	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-126-964-11	ELECT	10uF	20%	50V
C443	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C444	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C445	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C446	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C447	1-126-965-11	ELECT	22uF	20%	50V
C448	1-126-965-11	ELECT	22uF	20%	50V
C451	1-136-165-00	FILM	0.1uF	5%	50V
C452	1-136-165-00	FILM	0.1uF	5%	50V
C453	1-136-165-00	FILM	0.1uF	5%	50V
C454	1-136-165-00	FILM	0.1uF	5%	50V
C481	1-104-658-91	ELECT	100uF	20%	10V
C486	1-126-961-11	ELECT	2.2uF	20%	50V
C488	1-126-965-11	ELECT	22uF	20%	50V
C489	1-128-552-51	ELECT	47uF	20%	63V
C490	1-128-576-11	ELECT	100uF	20%	63V
		< CONNECTOR >			
CN441	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
		< DIODE >			
D401	6-500-360-01	DIODE D10XB20			
D441	8-719-000-07	DIODE MC2836			
D443	8-719-988-61	DIODE 1SS355TE-17			
D481	8-719-988-61	DIODE 1SS355TE-17			
D483	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC441	6-600-221-01	IC STK403-130			
		< JACK >			
JK441	1-694-884-21	TERMINAL BOARD (4P) (SPEAKER)			
		< RESISTOR >			
JR441	1-216-864-11	SHORT CHIP	0		
JR442	1-216-864-11	SHORT CHIP	0		
		< RESISTOR >			
JW464	1-247-791-91	CARBON	22	5%	1/4W
		< COIL >			
L441	1-422-009-13	COIL, AIR-CORE			
L442	1-422-009-13	COIL, AIR-CORE			

AMP **BD**

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q441	6-551-268-01	TRANSISTOR	2SC5625		
Q442	6-551-268-01	TRANSISTOR	2SC5625		
Q481	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q482	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q483	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q484	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q485	8-729-600-22	TRANSISTOR	2SA1235-F		
Q486	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q487	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q488	8-729-901-87	TRANSISTOR	2SC2411K-CQ		
Q489	6-551-268-01	TRANSISTOR	2SC5625		
		< RESISTOR >			
R401	1-216-845-11	METAL CHIP	100K	5%	1/10W
R402	1-216-845-11	METAL CHIP	100K	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R411	1-216-797-11	METAL CHIP	10	5%	1/10W
R412	1-216-797-11	METAL CHIP	10	5%	1/10W
R413	1-216-797-11	METAL CHIP	10	5%	1/10W
R414	1-216-797-11	METAL CHIP	10	5%	1/10W
R415	1-216-797-11	METAL CHIP	10	5%	1/10W
R416	1-216-797-11	METAL CHIP	10	5%	1/10W
R417	1-216-809-11	METAL CHIP	100	5%	1/10W
R418	1-216-809-11	METAL CHIP	100	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
R420	1-216-797-11	METAL CHIP	10	5%	1/10W
R421	1-216-797-11	METAL CHIP	10	5%	1/10W
R422	1-216-797-11	METAL CHIP	10	5%	1/10W
R423	1-216-797-11	METAL CHIP	10	5%	1/10W
R424	1-216-797-11	METAL CHIP	10	5%	1/10W
R425	1-216-797-11	METAL CHIP	10	5%	1/10W
R437	1-216-833-11	METAL CHIP	10K	5%	1/10W
R440	1-216-837-11	METAL CHIP	22K	5%	1/10W
R441	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R442	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R443	1-216-841-11	METAL CHIP	47K	5%	1/10W
R444	1-216-841-11	METAL CHIP	47K	5%	1/10W
R445	1-216-821-11	METAL CHIP	1K	5%	1/10W
R446	1-216-821-11	METAL CHIP	1K	5%	1/10W
R447	1-216-841-11	METAL CHIP	47K	5%	1/10W
R448	1-216-841-11	METAL CHIP	47K	5%	1/10W
⚠R449	1-212-974-00	FUSIBLE	47	5%	1/2W
⚠R451	1-220-893-11	METAL	0.22	10%	5W
⚠R452	1-220-893-11	METAL	0.22	10%	5W
R453	1-216-797-11	METAL CHIP	10	5%	1/10W
R454	1-216-797-11	METAL CHIP	10	5%	1/10W
R455	1-216-821-11	METAL CHIP	1K	5%	1/10W
R456	1-216-821-11	METAL CHIP	1K	5%	1/10W
R457	1-216-837-11	METAL CHIP	22K	5%	1/10W
R458	1-216-837-11	METAL CHIP	22K	5%	1/10W
R459	1-216-841-11	METAL CHIP	47K	5%	1/10W
R460	1-216-841-11	METAL CHIP	47K	5%	1/10W
R461	1-216-797-11	METAL CHIP	10	5%	1/10W
R462	1-216-797-11	METAL CHIP	10	5%	1/10W
R465	1-216-841-11	METAL CHIP	47K	5%	1/10W
R466	1-216-845-11	METAL CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R480	1-216-845-11	METAL CHIP	100K	5%	1/10W
R481	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R482	1-216-833-11	METAL CHIP	10K	5%	1/10W
R483	1-216-801-11	METAL CHIP	22	5%	1/10W
R484	1-216-845-11	METAL CHIP	100K	5%	1/10W
R485	1-216-845-11	METAL CHIP	100K	5%	1/10W
R486	1-216-845-11	METAL CHIP	100K	5%	1/10W
R487	1-216-841-11	METAL CHIP	47K	5%	1/10W
R488	1-216-837-11	METAL CHIP	22K	5%	1/10W
R490	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R491	1-216-841-11	METAL CHIP	47K	5%	1/10W
R492	1-216-821-11	METAL CHIP	1K	5%	1/10W
R493	1-216-841-11	METAL CHIP	47K	5%	1/10W
⚠R495	1-202-972-61	FUSIBLE	1	5%	1/4W
⚠R496	1-212-881-11	FUSIBLE	100	5%	1/4W
R497	1-216-845-11	METAL CHIP	100K	5%	1/10W
R498	1-216-821-11	METAL CHIP	1K	5%	1/10W
R499	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< RELAY >			
RY441	1-755-307-11	RELAY			
		< THERMISTOR >			
TH441	1-807-796-11	THERMISTOR			
**********					
	A-1091-086-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C10	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C11	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C14	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C15	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C16	1-115-156-11	CERAMIC CHIP	1uF		10V
C17	1-126-246-11	ELECT CHIP	220uF	20%	4V
C18	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C111	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C112	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C113	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C114	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C115	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C116	1-128-995-21	ELECT CHIP	100uF	20%	10V
C122	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C124	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C131	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C132	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C133	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C134	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C141	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C142	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C151	1-128-995-21	ELECT CHIP	100uF	20%	10V
C161	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C162	1-164-360-11	CERAMIC CHIP	0.1uF		16V

Ref. No.	Part No.	Description			Remark
C163	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C171	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C172	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C174	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C181	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C182	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C184	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C185	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C186	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C196	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
C209	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C210	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C211	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C212	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C213	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C251	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C252	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C255	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C257	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C258	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C259	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C260	1-128-394-11	ELECT CHIP	220uF	20%	10V
C302	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C303	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C305	1-126-246-11	ELECT CHIP	220uF	20%	4V
C306	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C307	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C308	1-126-208-21	ELECT CHIP	47uF	20%	4V
C309	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C310	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C311	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C312	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C313	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C314	1-126-208-21	ELECT CHIP	47uF	20%	4V
C315	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C316	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C318	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C320	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C501	1-164-360-11	CERAMIC CHIP	0.1uF		16V
		< CONNECTOR >			
CN101	1-770-425-11	CONNECTOR, FFC/FPC 16P			
CN201	1-818-350-11	CONNECTOR, FFC (LIF (NON-ZIF)) 27P			
		< FERRITE BEAD >			
FB301	1-500-445-21	FERRITE, EMI (SMD) (2012)			
		< IC >			
IC101	8-752-425-12	IC CXD3059AR			
IC251	6-705-808-01	IC BA5947FM-E2			
IC301	6-705-365-01	IC TC94A34FG-002			
IC303	6-705-807-01	IC BH15FB1WG			
IC501	8-759-058-62	IC TC7S08FU (TE85R)			
		< TRANSISTOR >			
Q10	6-551-120-01	TRANSISTOR	2SA2119K		
		< RESISTOR >			
R10	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R11	1-216-864-11	SHORT CHIP	0		
R12	1-216-845-11	METAL CHIP	100K	5%	1/10W
R13	1-218-446-11	METAL CHIP	1	5%	1/10W
R111	1-216-821-11	METAL CHIP	1K	5%	1/10W
R112	1-216-835-11	METAL CHIP	15K	5%	1/10W
R113	1-216-821-11	METAL CHIP	1K	5%	1/10W
R114	1-216-835-11	METAL CHIP	15K	5%	1/10W
R121	1-216-835-11	METAL CHIP	15K	5%	1/10W
R131	1-216-857-11	METAL CHIP	1M	5%	1/10W
R132	1-216-833-11	METAL CHIP	10K	5%	1/10W
R133	1-216-848-11	METAL CHIP	180K	5%	1/10W
R141	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R142	1-216-821-11	METAL CHIP	1K	5%	1/10W
R143	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R151	1-216-864-11	SHORT CHIP	0		
R161	1-216-809-11	METAL CHIP	100	5%	1/10W
R162	1-216-841-11	METAL CHIP	47K	5%	1/10W
R163	1-216-809-11	METAL CHIP	100	5%	1/10W
R165	1-216-864-11	SHORT CHIP	0		
R171	1-216-817-11	METAL CHIP	470	5%	1/10W
R172	1-216-857-11	METAL CHIP	1M	5%	1/10W
R173	1-216-295-91	SHORT CHIP	0		
R181	1-216-809-11	METAL CHIP	100	5%	1/10W
R182	1-216-809-11	METAL CHIP	100	5%	1/10W
R191	1-216-864-11	SHORT CHIP	0		
R201	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R203	1-216-864-11	SHORT CHIP	0		
R204	1-216-864-11	SHORT CHIP	0		
R205	1-216-864-11	SHORT CHIP	0		
R251	1-216-833-11	METAL CHIP	10K	5%	1/10W
R252	1-216-837-11	METAL CHIP	22K	5%	1/10W
R253	1-216-833-11	METAL CHIP	10K	5%	1/10W
R301	1-216-845-11	METAL CHIP	100K	5%	1/10W
R302	1-216-833-11	METAL CHIP	10K	5%	1/10W
R303	1-216-845-11	METAL CHIP	100K	5%	1/10W
R305	1-216-845-11	METAL CHIP	100K	5%	1/10W
R306	1-216-864-11	SHORT CHIP	0		
R307	1-216-833-11	METAL CHIP	10K	5%	1/10W
R313	1-216-813-11	METAL CHIP	220	5%	1/10W
R351	1-216-809-11	METAL CHIP	100	5%	1/10W
R352	1-216-809-11	METAL CHIP	100	5%	1/10W
R353	1-216-809-11	METAL CHIP	100	5%	1/10W
R354	1-216-809-11	METAL CHIP	100	5%	1/10W
R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R402	1-216-809-11	METAL CHIP	100	5%	1/10W
R403	1-216-809-11	METAL CHIP	100	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/10W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W

BD **DRIVER** **GAME JACK** **H/P JACK** **MAIN**

Ref. No.	Part No.	Description			Remark
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R408	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-809-11	METAL CHIP	100	5%	1/10W
R410	1-216-809-11	METAL CHIP	100	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
R501	1-216-809-11	METAL CHIP	100	5%	1/10W
		< VIBRATOR >			
X171	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
	A-1103-756-A	DRIVER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C715	1-126-933-11	ELECT	100uF	20%	16V
C731	1-126-964-11	ELECT	10uF	20%	50V
C735	1-164-159-21	CERAMIC	0.1uF		50V
C736	1-164-159-21	CERAMIC	0.1uF		50V
C737	1-164-159-21	CERAMIC	0.1uF		50V
C741	1-162-306-11	CERAMIC	0.01uF	20%	16V
C751	1-162-306-11	CERAMIC	0.01uF	20%	16V
C752	1-164-159-21	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN701	1-784-735-11	CONNECTOR, FFC 13P			
CN702	1-784-766-11	CONNECTOR, FFC 5P			
* CN703	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN704	1-785-328-11	PIN, CONNECTOR (LIGHT ANGRE) 2P			
		< DIODE >			
D701	8-719-921-42	DIODE MTZJ-5.1A			
D711	8-719-109-69	DIODE RD3.6ESB2			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
IC712	8-759-598-69	IC BA6956AN			
		< TRANSISTOR >			
Q731	8-729-029-66	TRANSISTOR	DTC114ESA		
		< RESISTOR >			
R701	1-249-413-11	CARBON	470	5%	1/4W
R702	1-247-807-31	CARBON	100	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W
R712	1-249-425-11	CARBON	4.7K	5%	1/4W
R713	1-249-433-11	CARBON	22K	5%	1/4W
R721	1-249-425-11	CARBON	4.7K	5%	1/4W
R722	1-249-425-11	CARBON	4.7K	5%	1/4W
R723	1-249-425-11	CARBON	4.7K	5%	1/4W
R731	1-247-807-31	CARBON	100	5%	1/4W
R732	1-249-429-11	CARBON	10K	5%	1/4W
R733	1-249-417-11	CARBON	1K	5%	1/4W
R734	1-249-430-11	CARBON	12K	5%	1/4W
R735	1-247-807-31	CARBON	100	5%	1/4W

Ref. No.	Part No.	Description			Remark
R751	1-249-425-11	CARBON	4.7K	5%	1/4W
**********					
		GAME JACK BOARD			
		**********			
		< CAPACITOR >			
C753	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< JACK >			
J804	1-815-684-11	JACK, PIN 3P (GAME INPUT)			
		< RESISTOR >			
R751	1-216-833-11	METAL CHIP	10K	5%	1/10W
R752	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
**********					
		H/P JACK BOARD			
		**********			
		< CAPACITOR >			
C781	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C782	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< JACK >			
J701	1-785-448-21	JACK (PHONES)			
**********					
	A-1138-198-A	MAIN BOARD, COMPLETE			
		**********			
	7-685-872-09	SCREW +BVTT 3X8 (S)			
		< CAPACITOR >			
C001	1-136-165-00	FILM	0.1uF	5%	50V
C002	1-136-165-00	FILM	0.1uF	5%	50V
C005	1-126-768-11	ELECT	2200uF	20%	16V
C007	1-126-965-91	ELECT	22uF	20%	50V
C011	1-136-165-00	FILM	0.1uF	5%	50V
C012	1-136-165-00	FILM	0.1uF	5%	50V
C013	1-126-943-11	ELECT	2200uF	20%	25V
C015	1-126-933-11	ELECT	100uF	20%	16V
C016	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C023	1-126-943-11	ELECT	2200uF	20%	25V
C025	1-126-933-11	ELECT	100uF	20%	16V
C026	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C027	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C028	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C041	1-126-947-11	ELECT	47uF	20%	35V
C042	1-126-963-11	ELECT	4.7uF	20%	50V
C043	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C044	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C045	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C063	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C064	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C101	1-126-960-11	ELECT	1uF	20%	50V
C102	1-126-960-11	ELECT	1uF	20%	50V
C103	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C104	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description			Remark
C105	1-126-960-11	ELECT	1uF	20%	50V
C106	1-126-960-11	ELECT	1uF	20%	50V
C109	1-126-960-11	ELECT	1uF	20%	50V
C110	1-126-960-11	ELECT	1uF	20%	50V
C111	1-126-965-91	ELECT	22uF	20%	50V
C114	1-126-960-11	ELECT	1uF	20%	50V
C116	1-126-960-11	ELECT	1uF	20%	50V
C117	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C118	1-126-961-11	ELECT	2.2uF	20%	50V
C119	1-126-961-11	ELECT	2.2uF	20%	50V
C120	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C121	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C122	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C123	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C124	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C125	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C126	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C127	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C128	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C129	1-126-964-11	ELECT	10uF	20%	50V
C130	1-126-964-11	ELECT	10uF	20%	50V
C131	1-126-956-91	ELECT	0.1uF	20%	50V
C132	1-126-959-11	ELECT	0.47uF	20%	50V
C133	1-126-959-11	ELECT	0.47uF	20%	50V
C136	1-126-964-11	ELECT	10uF	20%	50V
C137	1-126-964-11	ELECT	10uF	20%	50V
C139	1-216-864-11	SHORT CHIP	0		
C140	1-216-864-11	SHORT CHIP	0		
C141	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C142	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C143	1-136-165-00	FILM	0.1uF	5%	50V
C144	1-136-165-00	FILM	0.1uF	5%	50V
C145	1-136-165-00	FILM	0.1uF	5%	50V
C146	1-136-165-00	FILM	0.1uF	5%	50V
C147	1-164-362-11	CERAMIC CHIP	470PF	5%	50V
C148	1-164-362-11	CERAMIC CHIP	470PF	5%	50V
C149	1-126-947-11	ELECT	47uF	20%	35V
C151	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C152	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C153	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C155	1-126-947-11	ELECT	47uF	20%	35V
C156	1-126-933-11	ELECT	100uF	20%	16V
C158	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C160	1-126-933-11	ELECT	100uF	20%	16V
C161	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C162	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C163	1-126-965-91	ELECT	22uF	20%	50V
C171	1-126-956-91	ELECT	0.1uF	20%	50V
C172	1-126-956-91	ELECT	0.1uF	20%	50V
C173	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C174	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C175	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C176	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C177	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C178	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C179	1-126-964-11	ELECT	10uF	20%	50V
C180	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remark
C181	1-126-960-11	ELECT	1uF	20%	50V
C182	1-126-960-11	ELECT	1uF	20%	50V
C183	1-126-960-11	ELECT	1uF	20%	50V
C184	1-126-960-11	ELECT	1uF	20%	50V
C191	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C192	1-107-726-91	CERAMIC CHIP	0.01uF	10%	16V
C193	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C194	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C197	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C198	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C199	1-126-964-11	ELECT	10uF	20%	50V
C200	1-126-964-11	ELECT	10uF	20%	50V
C201	1-126-961-11	ELECT	2.2uF	20%	50V
C202	1-126-961-11	ELECT	2.2uF	20%	50V
C205	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C206	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C207	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C208	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C209	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C210	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C211	1-131-679-31	FILM	0.01uF	5%	50V
C212	1-130-479-00	MYLAR	0.0047uF	5%	50V
C213	1-131-679-31	FILM	0.01uF	5%	50V
C214	1-130-479-00	MYLAR	0.0047uF	5%	50V
C222	1-126-947-11	ELECT	47uF	20%	35V
C223	1-131-679-31	FILM	0.01uF	5%	50V
C224	1-130-479-00	MYLAR	0.0047uF	5%	50V
C225	1-130-479-00	MYLAR	0.0047uF	5%	50V
C229	1-126-963-11	ELECT	4.7uF	20%	50V
C253	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C254	1-162-949-11	CERAMIC CHIP	47PF	5%	50V
C255	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C256	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C257	1-126-947-11	ELECT	47uF	20%	35V
C258	1-126-947-11	ELECT	47uF	20%	35V
C259	1-126-964-11	ELECT	10uF	20%	50V
C260	1-126-964-11	ELECT	10uF	20%	50V
C263	1-126-947-11	ELECT	47uF	20%	35V
C264	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C265	1-126-963-11	ELECT	4.7uF	20%	50V
C266	1-126-963-11	ELECT	4.7uF	20%	50V
C271	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C272	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C273	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C274	1-126-964-11	ELECT	10uF	20%	50V
C275	1-164-362-11	CERAMIC CHIP	470PF	5%	50V
C301	1-126-964-11	ELECT	10uF	20%	50V
C302	1-126-964-11	ELECT	10uF	20%	50V
C305	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C311	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C317	1-126-926-11	ELECT	1000uF	20%	10V
C391	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C901	1-126-933-11	ELECT	100uF	20%	16V
C902	1-126-964-11	ELECT	10uF	20%	50V
C904	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C906	1-126-964-11	ELECT	10uF	20%	50V
C908	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C909	1-164-156-11	CERAMIC CHIP	0.1uF		25V

MAIN

Ref. No.	Part No.	Description			Remark
C910	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C911	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C912	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C914	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C916	1-126-916-11	ELECT	1000uF	20%	6.3V
C917	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C918	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C919	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C921	1-126-961-11	ELECT	2.2uF	20%	50V
C922	1-126-963-11	ELECT	4.7uF	20%	50V
C923	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C924	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C925	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C927	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C928	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C970	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN031	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
CN041	1-564-506-11	PLUG, CONNECTOR 3P			
CN061	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN065	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN201	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CN203	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CN301	1-779-295-11	CONNECTOR, FFC (LIF (NON-ZIF)) 27P			
CN341	1-784-774-11	CONNECTOR, FFC 13P			
CN381	1-568-830-11	CONNECTOR, FFC 11P			
CN391	1-784-774-11	CONNECTOR, FFC 13P			
CN991	1-784-780-11	CONNECTOR, FFC 19P			
		< DIODE >			
D001	6-500-522-21	DIODE	10EDB40-TB3		
D002	6-500-522-21	DIODE	10EDB40-TB3		
D003	6-500-522-21	DIODE	10EDB40-TB3		
D004	6-500-522-21	DIODE	10EDB40-TB3		
D006	8-719-988-61	DIODE	1SS355TE-17		
D007	6-500-522-21	DIODE	10EDB40-TB3		
D008	6-500-522-21	DIODE	10EDB40-TB3		
D011	6-500-522-21	DIODE	10EDB40-TB3		
D012	6-500-522-21	DIODE	10EDB40-TB3		
D013	6-500-522-21	DIODE	10EDB40-TB3		
D014	6-500-522-21	DIODE	10EDB40-TB3		
D021	6-500-522-21	DIODE	10EDB40-TB3		
D022	6-500-522-21	DIODE	10EDB40-TB3		
D023	6-500-522-21	DIODE	10EDB40-TB3		
D024	6-500-522-21	DIODE	10EDB40-TB3		
D031	8-719-988-61	DIODE	1SS355TE-17		
D035	8-719-000-08	DIODE	MC2838		
D041	8-719-083-63	DIODE	UDZSTE-1713B		
D121	6-500-848-01	DIODE	MC2840-T112-1		
D122	6-500-848-01	DIODE	MC2840-T112-1		
D301	6-500-522-21	DIODE	10EDB40-TB3		
D302	6-500-522-21	DIODE	10EDB40-TB3		
D303	8-719-083-60	DIODE	UDZSTE-174.7B		
D341	8-719-000-07	DIODE	MC2836		
D901	8-719-083-60	DIODE	UDZSTE-174.7B		

Ref. No.	Part No.	Description		Remark
D902	8-719-000-07	DIODE	MC2836	
D910	8-719-988-61	DIODE	1SS355TE-17	
D921	6-500-848-01	DIODE	MC2840-T112-1	
D923	6-500-848-01	DIODE	MC2840-T112-1	
D943	8-719-000-08	DIODE	MC2838	
D947	8-719-988-61	DIODE	1SS355TE-17	
		< IC >		
IC006	6-702-771-01	IC	TA78033LS	
IC011	8-759-701-59	IC	NJM78M09FA	
IC021	8-759-701-59	IC	NJM78M09FA	
IC101	6-705-852-01	IC	BD3401KS2	
IC251	8-759-909-71	IC	BA4558F	
IC901	6-805-887-01	IC	M30302MCP-A06FPU0	
IC902	8-759-713-61	IC	PST3429UL	
		< JUMPER RESISTOR >		
JR001	1-216-864-11	SHORT CHIP	0	
JR005	1-216-864-11	SHORT CHIP	0	
JR006	1-216-864-11	SHORT CHIP	0	
JR009	1-216-864-11	SHORT CHIP	0	
JR010	1-216-864-11	SHORT CHIP	0	
JR171	1-216-864-11	SHORT CHIP	0	
JR172	1-216-864-11	SHORT CHIP	0	
JR174	1-216-864-11	SHORT CHIP	0	
JR901	1-216-864-11	SHORT CHIP	0	
		< COIL >		
L201	1-424-849-11	COIL, OSCILLATION (BIAS)		
		< TRANSISTOR >		
Q002	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q041	6-551-276-01	TRANSISTOR	RT1N431C-TP-1	
Q042	8-729-037-13	TRANSISTOR	KTA1271Y	
Q043	8-729-142-46	TRANSISTOR	2SC2001-LK	
Q044	8-729-142-46	TRANSISTOR	2SC2001-LK	
Q045	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q111	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q112	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q141	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q142	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q201	8-729-142-46	TRANSISTOR	2SC2001-LK	
Q203	8-729-600-22	TRANSISTOR	2SA1235-F	
Q205	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q206	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q207	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q208	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q209	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q210	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q231	6-551-276-01	TRANSISTOR	RT1N431C-TP-1	
Q232	8-729-037-13	TRANSISTOR	KTA1271Y	
Q251	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q252	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q261	8-729-027-23	TRANSISTOR	DTA114EKA-T146	
Q271	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
Q341	6-551-276-01	TRANSISTOR	RT1N431C-TP-1	
Q342	8-729-040-76	TRANSISTOR	KTA1273-Y-AT	

Ref. No.	Part No.	Description			Remark
Q343	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
Q344	8-729-037-13	TRANSISTOR	KTA1271Y		
Q345	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
Q346	8-729-037-13	TRANSISTOR	KTA1271Y		
Q901	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q902	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q903	8-729-037-13	TRANSISTOR	KTA1271Y		
Q904	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q933	6-551-276-01	TRANSISTOR	RT1N431C-TP-1		
		< RESISTOR >			
R001	1-216-801-11	METAL CHIP	22	5%	1/10W
R005	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R006	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R007	1-216-833-11	METAL CHIP	10K	5%	1/10W
R032	1-216-821-11	METAL CHIP	1K	5%	1/10W
R033	1-216-837-11	METAL CHIP	22K	5%	1/10W
R034	1-216-837-11	METAL CHIP	22K	5%	1/10W
R035	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R036	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R037	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R042	1-216-833-11	METAL CHIP	10K	5%	1/10W
R043	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R044	1-216-864-11	SHORT CHIP	0		
R045	1-216-821-11	METAL CHIP	1K	5%	1/10W
R046	1-216-821-11	METAL CHIP	1K	5%	1/10W
R047	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R048	1-216-841-11	METAL CHIP	47K	5%	1/10W
R049	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R050	1-216-841-11	METAL CHIP	47K	5%	1/10W
R052	1-216-853-11	METAL CHIP	470K	5%	1/10W
⚠R059	1-215-892-11	METAL OXIDE	1K	5%	2W
⚠R060	1-215-892-11	METAL OXIDE	1K	5%	2W
R063	1-216-809-11	METAL CHIP	100	5%	1/10W
R064	1-216-809-11	METAL CHIP	100	5%	1/10W
R070	1-216-833-11	METAL CHIP	10K	5%	1/10W
R103	1-216-837-11	METAL CHIP	22K	5%	1/10W
R104	1-216-837-11	METAL CHIP	22K	5%	1/10W
R107	1-216-821-11	METAL CHIP	1K	5%	1/10W
R108	1-216-837-11	METAL CHIP	22K	5%	1/10W
R109	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R110	1-216-841-11	METAL CHIP	47K	5%	1/10W
R111	1-216-845-11	METAL CHIP	100K	5%	1/10W
R112	1-216-817-11	METAL CHIP	470	5%	1/10W
R113	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R114	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R116	1-216-809-11	METAL CHIP	100	5%	1/10W
R117	1-216-833-11	METAL CHIP	10K	5%	1/10W
R119	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R120	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R121	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R122	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R128	1-216-833-11	METAL CHIP	10K	5%	1/10W
R129	1-216-845-11	METAL CHIP	100K	5%	1/10W
R130	1-216-864-11	SHORT CHIP	0		
R131	1-216-849-11	METAL CHIP	220K	5%	1/10W
R132	1-216-849-11	METAL CHIP	220K	5%	1/10W
R133	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R134	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R135	1-216-821-11	METAL CHIP	1K	5%	1/10W
R136	1-216-821-11	METAL CHIP	1K	5%	1/10W
R137	1-216-841-11	METAL CHIP	47K	5%	1/10W
R138	1-216-841-11	METAL CHIP	47K	5%	1/10W
R139	1-216-837-11	METAL CHIP	22K	5%	1/10W
R140	1-216-837-11	METAL CHIP	22K	5%	1/10W
R141	1-216-849-11	METAL CHIP	220K	5%	1/10W
R142	1-216-849-11	METAL CHIP	220K	5%	1/10W
R143	1-216-841-11	METAL CHIP	47K	5%	1/10W
R144	1-216-841-11	METAL CHIP	47K	5%	1/10W
R145	1-216-841-11	METAL CHIP	47K	5%	1/10W
R146	1-216-857-11	METAL CHIP	1M	5%	1/10W
R147	1-216-845-11	METAL CHIP	100K	5%	1/10W
R148	1-216-845-11	METAL CHIP	100K	5%	1/10W
R151	1-216-833-11	METAL CHIP	10K	5%	1/10W
R152	1-216-833-11	METAL CHIP	10K	5%	1/10W
R153	1-216-837-11	METAL CHIP	22K	5%	1/10W
R154	1-216-833-11	METAL CHIP	10K	5%	1/10W
R156	1-216-809-11	METAL CHIP	100	5%	1/10W
R157	1-216-809-11	METAL CHIP	100	5%	1/10W
R158	1-216-809-11	METAL CHIP	100	5%	1/10W
R159	1-216-857-11	METAL CHIP	1M	5%	1/10W
R160	1-216-797-11	METAL CHIP	10	5%	1/10W
R161	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R162	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R163	1-216-833-11	METAL CHIP	10K	5%	1/10W
R164	1-216-833-11	METAL CHIP	10K	5%	1/10W
R165	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R166	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R167	1-216-849-11	METAL CHIP	220K	5%	1/10W
R168	1-216-849-11	METAL CHIP	220K	5%	1/10W
R169	1-216-845-11	METAL CHIP	100K	5%	1/10W
R170	1-216-845-11	METAL CHIP	100K	5%	1/10W
R171	1-216-817-11	METAL CHIP	470	5%	1/10W
R172	1-216-817-11	METAL CHIP	470	5%	1/10W
R173	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R174	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R175	1-216-821-11	METAL CHIP	1K	5%	1/10W
R176	1-216-821-11	METAL CHIP	1K	5%	1/10W
R177	1-216-821-11	METAL CHIP	1K	5%	1/10W
R178	1-216-821-11	METAL CHIP	1K	5%	1/10W
R179	1-216-853-11	METAL CHIP	470K	5%	1/10W
R180	1-216-853-11	METAL CHIP	470K	5%	1/10W
R181	1-216-845-11	METAL CHIP	100K	5%	1/10W
R182	1-216-845-11	METAL CHIP	100K	5%	1/10W
R183	1-216-849-11	METAL CHIP	220K	5%	1/10W
R184	1-216-849-11	METAL CHIP	220K	5%	1/10W
R185	1-216-841-11	METAL CHIP	47K	5%	1/10W
R186	1-216-841-11	METAL CHIP	47K	5%	1/10W
R187	1-216-845-11	METAL CHIP	100K	5%	1/10W
R188	1-216-845-11	METAL CHIP	100K	5%	1/10W
R189	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R190	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R191	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R192	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R203	1-216-841-11	METAL CHIP	47K	5%	1/10W
R204	1-216-841-11	METAL CHIP	47K	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R205	1-216-833-11	METAL CHIP	10K	5%	1/10W
R206	1-216-833-11	METAL CHIP	10K	5%	1/10W
R207	1-216-837-11	METAL CHIP	22K	5%	1/10W
R208	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R212	1-216-797-11	METAL CHIP	10	5%	1/10W
R232	1-216-833-11	METAL CHIP	10K	5%	1/10W
R233	1-216-833-11	METAL CHIP	10K	5%	1/10W
R234	1-216-833-11	METAL CHIP	10K	5%	1/10W
R235	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R236	1-216-833-11	METAL CHIP	10K	5%	1/10W
R237	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R238	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R239	1-216-821-11	METAL CHIP	1K	5%	1/10W
R240	1-216-821-11	METAL CHIP	1K	5%	1/10W
R244	1-216-837-11	METAL CHIP	22K	5%	1/10W
R245	1-216-833-11	METAL CHIP	10K	5%	1/10W
R247	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R248	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R250	1-216-833-11	METAL CHIP	10K	5%	1/10W
R251	1-216-821-11	METAL CHIP	1K	5%	1/10W
R252	1-216-821-11	METAL CHIP	1K	5%	1/10W
R253	1-216-833-11	METAL CHIP	10K	5%	1/10W
R254	1-216-833-11	METAL CHIP	10K	5%	1/10W
R257	1-216-833-11	METAL CHIP	10K	5%	1/10W
R258	1-216-841-11	METAL CHIP	47K	5%	1/10W
R259	1-216-841-11	METAL CHIP	47K	5%	1/10W
R261	1-216-833-11	METAL CHIP	10K	5%	1/10W
R262	1-216-833-11	METAL CHIP	10K	5%	1/10W
R263	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R264	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R265	1-216-809-11	METAL CHIP	100	5%	1/10W
R267	1-216-841-11	METAL CHIP	47K	5%	1/10W
R268	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R274	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R275	1-216-841-11	METAL CHIP	47K	5%	1/10W
R276	1-216-845-11	METAL CHIP	100K	5%	1/10W
R277	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R278	1-216-833-11	METAL CHIP	10K	5%	1/10W
R279	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R280	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R282	1-216-809-11	METAL CHIP	100	5%	1/10W
R283	1-216-833-11	METAL CHIP	10K	5%	1/10W
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-833-11	METAL CHIP	10K	5%	1/10W
R314	1-216-809-11	METAL CHIP	100	5%	1/10W
R315	1-216-809-11	METAL CHIP	100	5%	1/10W
R316	1-216-809-11	METAL CHIP	100	5%	1/10W
R317	1-216-817-11	METAL CHIP	470	5%	1/10W
R318	1-216-809-11	METAL CHIP	100	5%	1/10W
R319	1-216-809-11	METAL CHIP	100	5%	1/10W
R320	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-809-11	METAL CHIP	100	5%	1/10W
R322	1-216-817-11	METAL CHIP	470	5%	1/10W
R323	1-216-809-11	METAL CHIP	100	5%	1/10W
R341	1-216-833-11	METAL CHIP	10K	5%	1/10W
R342	1-216-821-11	METAL CHIP	1K	5%	1/10W
R343	1-216-833-11	METAL CHIP	10K	5%	1/10W
R344	1-216-821-11	METAL CHIP	1K	5%	1/10W
R345	1-216-833-11	METAL CHIP	10K	5%	1/10W
R346	1-216-821-11	METAL CHIP	1K	5%	1/10W
R347	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R348	1-216-841-11	METAL CHIP	47K	5%	1/10W
R349	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R350	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R351	1-216-841-11	METAL CHIP	47K	5%	1/10W
R352	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R353	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R354	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R355	1-216-837-11	METAL CHIP	22K	5%	1/10W
R356	1-216-837-11	METAL CHIP	22K	5%	1/10W
R357	1-216-821-11	METAL CHIP	1K	5%	1/10W
R358	1-216-821-11	METAL CHIP	1K	5%	1/10W
R359	1-216-833-11	METAL CHIP	10K	5%	1/10W
R360	1-216-833-11	METAL CHIP	10K	5%	1/10W
R361	1-216-837-11	METAL CHIP	22K	5%	1/10W
R362	1-216-837-11	METAL CHIP	22K	5%	1/10W
R363	1-216-821-11	METAL CHIP	1K	5%	1/10W
R364	1-216-821-11	METAL CHIP	1K	5%	1/10W
R365	1-216-833-11	METAL CHIP	10K	5%	1/10W
R366	1-216-833-11	METAL CHIP	10K	5%	1/10W
R367	1-216-837-11	METAL CHIP	22K	5%	1/10W
R368	1-216-837-11	METAL CHIP	22K	5%	1/10W
R369	1-216-837-11	METAL CHIP	22K	5%	1/10W
R370	1-216-837-11	METAL CHIP	22K	5%	1/10W
R381	1-216-809-11	METAL CHIP	100	5%	1/10W
R382	1-216-809-11	METAL CHIP	100	5%	1/10W
R383	1-216-809-11	METAL CHIP	100	5%	1/10W
R384	1-216-809-11	METAL CHIP	100	5%	1/10W
R387	1-216-864-11	SHORT CHIP	0		
R388	1-216-864-11	SHORT CHIP	0		
R389	1-216-864-11	SHORT CHIP	0		
R901	1-216-845-11	METAL CHIP	100K	5%	1/10W
R902	1-216-864-11	SHORT CHIP	0		
R903	1-216-833-11	METAL CHIP	10K	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
R905	1-216-833-11	METAL CHIP	10K	5%	1/10W
R907	1-216-841-11	METAL CHIP	47K	5%	1/10W
R908	1-216-841-11	METAL CHIP	47K	5%	1/10W
R909	1-216-837-11	METAL CHIP	22K	5%	1/10W
R910	1-216-833-11	METAL CHIP	10K	5%	1/10W
R912	1-216-821-11	METAL CHIP	1K	5%	1/10W
R913	1-216-821-11	METAL CHIP	1K	5%	1/10W
R915	1-216-809-11	METAL CHIP	100	5%	1/10W
R918	1-216-849-11	METAL CHIP	220K	5%	1/10W
R919	1-216-864-11	SHORT CHIP	0		
R920	1-216-809-11	METAL CHIP	100	5%	1/10W
R921	1-216-857-11	METAL CHIP	1M	5%	1/10W
R922	1-216-849-11	METAL CHIP	220K	5%	1/10W
R923	1-216-809-11	METAL CHIP	100	5%	1/10W
R924	1-216-809-11	METAL CHIP	100	5%	1/10W
R925	1-216-809-11	METAL CHIP	100	5%	1/10W
R926	1-216-809-11	METAL CHIP	100	5%	1/10W
R927	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R928	1-216-809-11	METAL CHIP	100	5%	1/10W
R929	1-216-809-11	METAL CHIP	100	5%	1/10W
R931	1-216-833-11	METAL CHIP	10K	5%	1/10W
R932	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R935	1-216-833-11	METAL CHIP	10K	5%	1/10W
R936	1-216-837-11	METAL CHIP	22K	5%	1/10W
R937	1-216-845-11	METAL CHIP	100K	5%	1/10W
R938	1-216-833-11	METAL CHIP	10K	5%	1/10W
R939	1-216-809-11	METAL CHIP	100	5%	1/10W
R940	1-216-833-11	METAL CHIP	10K	5%	1/10W
R941	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R942	1-216-833-11	METAL CHIP	10K	5%	1/10W
R943	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R944	1-216-849-11	METAL CHIP	220K	5%	1/10W
R945	1-216-813-11	METAL CHIP	220	5%	1/10W
R946	1-216-864-11	SHORT CHIP	0		
R947	1-216-849-11	METAL CHIP	220K	5%	1/10W
R948	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R949	1-216-833-11	METAL CHIP	10K	5%	1/10W
R950	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R951	1-216-813-11	METAL CHIP	220	5%	1/10W
R952	1-216-809-11	METAL CHIP	100	5%	1/10W
R953	1-216-833-11	METAL CHIP	10K	5%	1/10W
R954	1-216-809-11	METAL CHIP	100	5%	1/10W
R955	1-216-809-11	METAL CHIP	100	5%	1/10W
R956	1-216-809-11	METAL CHIP	100	5%	1/10W
R957	1-216-809-11	METAL CHIP	100	5%	1/10W
R958	1-216-833-11	METAL CHIP	10K	5%	1/10W
R959	1-216-809-11	METAL CHIP	100	5%	1/10W
R961	1-216-809-11	METAL CHIP	100	5%	1/10W
R963	1-216-809-11	METAL CHIP	100	5%	1/10W
R965	1-216-809-11	METAL CHIP	100	5%	1/10W
R967	1-216-809-11	METAL CHIP	100	5%	1/10W
R968	1-216-809-11	METAL CHIP	100	5%	1/10W
R970	1-216-821-11	METAL CHIP	1K	5%	1/10W
R979	1-216-809-11	METAL CHIP	100	5%	1/10W
R980	1-216-809-11	METAL CHIP	100	5%	1/10W
R981	1-216-809-11	METAL CHIP	100	5%	1/10W
R982	1-216-809-11	METAL CHIP	100	5%	1/10W
R992	1-216-821-11	METAL CHIP	1K	5%	1/10W
R993	1-216-821-11	METAL CHIP	1K	5%	1/10W
R996	1-216-809-11	METAL CHIP	100	5%	1/10W
R997	1-216-809-11	METAL CHIP	100	5%	1/10W
R998	1-216-809-11	METAL CHIP	100	5%	1/10W
R999	1-216-809-11	METAL CHIP	100	5%	1/10W
		< VIBRATOR >			
X901	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)			
X902	1-795-482-11	VIBRATOR, CERAMIC (16MHz)			
**********					
	1-687-133-12	MOTOR (LD) BOARD			
		**********			
**********					

Ref. No.	Part No.	Description			Remark
	1-687-134-12	MOTOR (TB) BOARD			
		**********			
		< CONNECTOR >			
CN742	1-784-727-11	CONNECTOR, FFC 5P			
**********					
		PANEL BOARD			
		**********			
		< CAPACITOR >			
C621	1-124-257-00	ELECT	2.2uF	20%	50V
C622	1-124-257-00	ELECT	2.2uF	20%	50V
C625	1-128-131-11	ELECT	22uF	20%	50V
C631	1-124-589-11	ELECT	47uF	20%	16V
C701	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C702	1-124-589-11	ELECT	47uF	20%	16V
C703	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C704	1-164-357-11	CERAMIC CHIP	0.001uF	5%	50V
C707	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C708	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C709	1-124-589-11	ELECT	47uF	20%	16V
C710	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C712	1-128-131-11	ELECT	22uF	20%	50V
		< CONNECTOR >			
CN601	1-784-741-11	CONNECTOR, FFC 19P			
* CN602	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
CN605	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P			
CN608	1-818-282-11	PIN, CONNECTOR (FOR PWB) 3P			
		< DIODE >			
D611	8-719-063-93	DIODE SLR325VC-N-T32 (I/⏻)			
		< FLUORESCENT INDICATOR TUBE >			
FL701	1-518-976-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC701	6-708-011-01	IC uPD780232GC-508-8BT-A			
		< TRANSISTOR >			
Q601	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q602	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q603	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q604	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q605	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q606	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
		< RESISTOR >			
R607	1-216-817-11	METAL CHIP	470	5%	1/10W
R609	1-216-809-11	METAL CHIP	100	5%	1/10W
R619	1-216-809-11	METAL CHIP	100	5%	1/10W
R620	1-216-805-11	METAL CHIP	47	5%	1/10W
R621	1-216-837-11	METAL CHIP	22K	5%	1/10W
R622	1-216-837-11	METAL CHIP	22K	5%	1/10W
R623	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R625	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

PANEL **REM** **SENSOR**

Ref. No.	Part No.	Description			Remark
R627	1-216-801-11	METAL CHIP	22	5%	1/10W
R628	1-216-801-11	METAL CHIP	22	5%	1/10W
R631	1-216-833-11	METAL CHIP	10K	5%	1/10W
R632	1-216-833-11	METAL CHIP	10K	5%	1/10W
R633	1-216-833-11	METAL CHIP	10K	5%	1/10W
R634	1-216-833-11	METAL CHIP	10K	5%	1/10W
R635	1-216-833-11	METAL CHIP	10K	5%	1/10W
R636	1-216-833-11	METAL CHIP	10K	5%	1/10W
R645	1-216-841-11	METAL CHIP	47K	5%	1/10W
R646	1-216-841-11	METAL CHIP	47K	5%	1/10W
R647	1-216-797-11	METAL CHIP	10	5%	1/10W
R648	1-216-797-11	METAL CHIP	10	5%	1/10W
R650	1-216-837-11	METAL CHIP	22K	5%	1/10W
R651	1-216-841-11	METAL CHIP	47K	5%	1/10W
R652	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R660	1-216-837-11	METAL CHIP	22K	5%	1/10W
R661	1-216-841-11	METAL CHIP	47K	5%	1/10W
R662	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R663	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R664	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R665	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R666	1-216-833-11	METAL CHIP	10K	5%	1/10W
R667	1-216-837-11	METAL CHIP	22K	5%	1/10W
R668	1-216-841-11	METAL CHIP	47K	5%	1/10W
R670	1-216-837-11	METAL CHIP	22K	5%	1/10W
R671	1-216-841-11	METAL CHIP	47K	5%	1/10W
R672	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R673	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R674	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R675	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R676	1-216-833-11	METAL CHIP	10K	5%	1/10W
R680	1-216-837-11	METAL CHIP	22K	5%	1/10W
R681	1-216-841-11	METAL CHIP	47K	5%	1/10W
R682	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R683	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R684	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R685	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R686	1-216-833-11	METAL CHIP	10K	5%	1/10W
R687	1-216-837-11	METAL CHIP	22K	5%	1/10W
R688	1-216-841-11	METAL CHIP	47K	5%	1/10W
R690	1-216-837-11	METAL CHIP	22K	5%	1/10W
R691	1-216-841-11	METAL CHIP	47K	5%	1/10W
R692	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R693	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R694	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R695	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R696	1-216-833-11	METAL CHIP	10K	5%	1/10W
R697	1-216-837-11	METAL CHIP	22K	5%	1/10W
R701	1-216-864-11	SHORT CHIP	0		
R702	1-216-821-11	METAL CHIP	1K	5%	1/10W
R703	1-216-809-11	METAL CHIP	100	5%	1/10W
R704	1-216-864-11	SHORT CHIP	0		
R705	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R706	1-216-821-11	METAL CHIP	1K	5%	1/10W
R707	1-216-821-11	METAL CHIP	1K	5%	1/10W
R708	1-216-821-11	METAL CHIP	1K	5%	1/10W
R709	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S601	1-762-875-21	SWITCH, KEYBOARD (I/⏻)	
S602	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)	
S611	1-762-875-21	SWITCH, KEYBOARD (ILLUMINATION)	
S612	1-762-875-21	SWITCH, KEYBOARD (CD)	
S613	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)	
S614	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)	
S615	1-762-875-21	SWITCH, KEYBOARD (GAME)	
S616	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)	
S617	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)	
S618	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)	
S621	1-762-875-21	SWITCH, KEYBOARD (▶▶ ALBUM +)	
S622	1-762-875-21	SWITCH, KEYBOARD (◀◀ ALBUM –)	
S623	1-762-875-21	SWITCH, KEYBOARD (▮▮)	
S624	1-762-875-21	SWITCH, KEYBOARD (■)	
S625	1-762-875-21	SWITCH, KEYBOARD (TUNING –)	
S631	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE/TUNING MODE)	
S632	1-762-875-21	SWITCH, KEYBOARD (▷)	
S633	1-762-875-21	SWITCH, KEYBOARD (TUNING +)	
S634	1-762-875-21	SWITCH, KEYBOARD (P FILE)	
S635	1-762-875-21	SWITCH, KEYBOARD (PRESET EQ)	
S636	1-762-875-21	SWITCH, KEYBOARD (ENTER)	
S637	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)	
S638	1-762-875-21	SWITCH, KEYBOARD (SURROUND)	
S641	1-762-875-21	SWITCH, KEYBOARD (EQ BAND)	
S642	1-762-875-21	SWITCH, KEYBOARD (GROOVE)	
S643	1-762-875-21	SWITCH, KEYBOARD (DISC1)	
S644	1-762-875-21	SWITCH, KEYBOARD (DISC2)	
S645	1-762-875-21	SWITCH, KEYBOARD (DISC3)	
S646	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)	
S647	1-762-875-21	SWITCH, KEYBOARD (⏏)	
		< VIBRATOR >	
X701	1-795-054-21	VIBRATOR, CERAMIC (4.19MHz)	
**********			
		REM BOARD	
		**********	
		< CONNECTOR >	
CN610	1-816-423-11	SOCKET, CONNECTOR 3P	
		< IC >	
IC610	6-600-446-01	IC RPM7240-H18	
		< JUMPER RESISTOR >	
JR624	1-216-296-11	SHORT CHIP 0	
**********			
	1-687-132-12	SENSOR BOARD	
		**********	
		< CONNECTOR >	
CN731	1-785-329-21	PIN, CONNECTOR (LIGHT ANGLE) 3P	

Ref. No.	Part No.	Description			Remark
		< IC >			
IC731	6-600-022-01	IC RPI-576			
**********					
		SUB-TRANS BOARD			
		**********			
		< CONNECTOR >			
CN901	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
CN903	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
		< DIODE >			
D901	8-719-988-61	DIODE 1SS355TE-17			
D902	6-500-522-21	DIODE 10EDB40-TB3			
D903	6-500-522-21	DIODE 10EDB40-TB3			
D904	6-500-522-21	DIODE 10EDB40-TB3			
D905	6-500-522-21	DIODE 10EDB40-TB3			
		< TRANSFORMER >			
⚠PT902	1-443-614-11	TRANSFORMER, POWER			
		< RESISTOR >			
R912	1-216-801-11	METAL CHIP	22	5%	1/10W
R913	1-216-864-11	SHORT CHIP	0		
		< RELAY >			
⚠RY901	1-755-334-11	RELAY, AC POWER			
**********					
		SUB-WOOFER BOARD			
		**********			
		< CAPACITOR >			
C502	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C503	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C504	1-104-662-91	ELECT	22uF	20%	25V
C505	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C506	1-104-665-11	ELECT	100uF	20%	25V
C507	1-126-967-11	ELECT	47uF	20%	50V
C508	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C509	1-128-563-11	ELECT	100uF	20%	100V
C510	1-128-582-11	ELECT	10uF	20%	100V
C511	1-128-582-11	ELECT	10uF	20%	100V
C512	1-136-165-00	FILM	0.1uF	5%	50V
C513	1-136-165-00	FILM	0.1uF	5%	50V
C514	1-126-948-11	ELECT	100uF	20%	35V
C516	1-126-964-11	ELECT	10uF	20%	50V
C517	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN501	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN502	1-564-509-11	PLUG, CONNECTOR 6P			
* CN503	1-564-517-11	PLUG, CONNECTOR 2P (CONTROL)			
		< DIODE >			
D501	8-719-083-82	DIODE UDZS-TE17-12B			
D502	8-719-988-61	DIODE 1SS355TE-17			
D503	8-719-988-61	DIODE 1SS355TE-17			
D504	8-719-988-61	DIODE 1SS355TE-17			
D507	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC501	6-600-091-01	IC STK404-130S			
		< JACK >			
JK501	1-774-785-11	JACK, PIN 1P (SUB WOOFER OUT)			
		< RESISTOR >			
JR501	1-216-864-11	SHORT CHIP	0		
JR502	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
JW523	1-247-791-91	CARBON	22	5%	1/4W
		< TRANSISTOR >			
Q501	6-551-268-01	TRANSISTOR	2SC5625		
Q502	8-729-600-22	TRANSISTOR	2SA1235-F		
Q503	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q505	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q506	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q507	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q510	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
		< RESISTOR >			
R501	1-216-841-11	METAL CHIP	47K	5%	1/10W
R502	1-216-841-11	METAL CHIP	47K	5%	1/10W
R503	1-216-821-11	METAL CHIP	1K	5%	1/10W
R504	1-216-841-11	METAL CHIP	47K	5%	1/10W
⚠R505	1-215-873-00	METAL OXIDE	4.7K	5%	1W
⚠R506	1-202-972-61	FUSIBLE	1	5%	1/4W
⚠R507	1-215-873-00	METAL OXIDE	4.7K	5%	1W
⚠R508	1-215-873-00	METAL OXIDE	4.7K	5%	1W
⚠R509	1-212-881-11	FUSIBLE	100	5%	1/4W
⚠R510	1-220-893-11	METAL	0.22	10%	5W
⚠R511	1-220-893-11	METAL	0.22	10%	5W
R512	1-216-797-11	METAL CHIP	10	5%	1/10W
R513	1-216-821-11	METAL CHIP	1K	5%	1/10W
R514	1-216-837-11	METAL CHIP	22K	5%	1/10W
R515	1-216-841-11	METAL CHIP	47K	5%	1/10W
R516	1-216-809-11	METAL CHIP	100	5%	1/10W
R517	1-216-833-11	METAL CHIP	10K	5%	1/10W
R518	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R519	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R520	1-216-845-11	METAL CHIP	100K	5%	1/10W
R521	1-216-809-11	METAL CHIP	100	5%	1/10W
R522	1-216-809-11	METAL CHIP	100	5%	1/10W
R523	1-216-809-11	METAL CHIP	100	5%	1/10W
R524	1-216-841-11	METAL CHIP	47K	5%	1/10W
R525	1-216-797-11	METAL CHIP	10	5%	1/10W
R526	1-216-797-11	METAL CHIP	10	5%	1/10W
R527	1-216-797-11	METAL CHIP	10	5%	1/10W
R528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R529	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R530	1-216-837-11	METAL CHIP	22K	5%	1/10W
R531	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R532	1-216-837-11	METAL CHIP	22K	5%	1/10W
R533	1-216-837-11	METAL CHIP	22K	5%	1/10W

SUB-WOOFER **SW** **TRANS AC1** **TRANS AC2** **VIDEO OUT**

Ref. No.	Part No.	Description			Remark
⚠R534	1-202-972-61	FUSIBLE	1	5%	1/4W
		< RELAY >			
RY501	1-755-307-11	RELAY			
**********					
	1-687-669-12	SW BOARD			
		*********			
		< SWITCH >			
S751	1-786-514-11	SWITCH, LEVER (SLIDE) (OPEN/CLOSE DETECT)			
**********					
		TRANS AC1 BOARD			
		**********			
		< RESISTOR >			
⚠R902	1-202-723-00	SOLID	2.2M	20%	1/2W
**********					
		TRANS AC2 BOARD			
		**********			
		< CAPACITOR >			
C907	1-136-165-00	FILM	0.1uF	5%	50V
C908	1-128-553-11	ELECT	220uF	20%	63V
C909	1-126-964-11	ELECT	10uF	20%	50V
C910	1-126-968-11	ELECT	100uF	20%	50V
C911	1-126-942-61	ELECT	1000uF	20%	25V
		< CONNECTOR >			
CN905	1-564-506-11	PLUG, CONNECTOR 3P			
CN906	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CN907	1-764-333-11	PLUG, CONNECTOR 10P			
		< DIODE >			
D906	8-719-083-70	DIODE UDZSTE-1727B			
D908	6-500-522-21	DIODE 10EDB40-TB3			
		< FUSE HOLDER >			
FH907	1-533-233-31	FUSE HOLDER			
FH908	1-533-233-31	FUSE HOLDER			
FH909	1-533-233-31	FUSE HOLDER			
FH910	1-533-233-31	FUSE HOLDER			
FH911	1-533-233-31	FUSE HOLDER			
FH912	1-533-233-31	FUSE HOLDER			
FH913	1-533-233-31	FUSE HOLDER			
FH914	1-533-233-31	FUSE HOLDER			
		< TRANSISTOR >			
Q902	8-729-048-66	TRANSISTOR	2SB1238-PQR-TV2		
		< RESISTOR >			
R903	1-216-833-11	METAL CHIP	10K	5%	1/10W
R904	1-216-821-11	METAL CHIP	1K	5%	1/10W
⚠R908	1-202-972-61	FUSIBLE	1	5%	1/4W
**********					

Ref. No.	Part No.	Description	Remark
		VIDEO OUT BOARD	
		**********	
		< CONNECTOR >	
CN803	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P	
		< JACK >	
J803	1-774-227-11	JACK, PIN 1P (VIDEO OUT)	
**********			
		MISCELLANEOUS	
		**********	
7	1-787-319-11	FAN, DC	
8	1-828-963-11	WIRE (FLAT TYPE) (11 CORE)	
9	1-693-631-31	TUNER (FM/AM)	
65	1-829-003-11	WIRE (FLAT TYPE) (19 CORE)	
69	1-796-485-51	DECK, MECHANICAL (CWM43FF-05)	
⚠103	1-830-190-11	CORD, POWER	
110	1-828-973-11	WIRE (FLAT TYPE) (13 CORE)	
111	1-828-970-11	WIRE (FLAT TYPE) (13 CORE)	
152	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
226	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
227	1-775-251-11	WIRE (FLAT TYPE) (27 CORE)	
⚠229	A-4735-357-A	OPTICAL PICK-UP (KSM-213DCP/C2NP)	
230	1-471-035-11	MAGNET ASSY	
⚠F904	1-533-949-33	FUSE, CYLINDRICAL (TIME LUG)(T8.0AL/250V)	
⚠F905	1-533-949-33	FUSE, CYLINDRICAL (TIME LUG)(T8.0AL/250V)	
⚠F906	1-532-465-33	FUSE (T3.15AL/250V)	
⚠F907	1-532-465-33	FUSE (T3.15AL/250V)	
M741	A-1108-965-A	TABLE MOTOR ASSY (TABLE)	
M751	A-1108-966-A	LOADING MOTOR ASSY (LOADING)	
⚠PT901	1-443-254-12	TRANSFORMER, POWER	
⚠PT902	1-443-614-11	TRANSFORMER, POWER	
RE701	1-477-680-12	ENCODER, ROTARY	
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	

MEMO

REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2004.03	New
1.1	2005.05	Change of LC876996A-52S4-E to LC876996A-53H2-E for IC601. Change of LC876996A-53H2-E to LC876A96A-55D8-E for IC601. Supplement-1 : PANEL board changed to suffix-14 from suffix-11 (SPM-05060)
1.2	2005.08	Addition of ELECTRICAL ADJUSTMENTS
		Addition of New type models with Supplement-2 (ENG-05003)
1.3	2006.10	Addition of CASS DOOR SPRING (A) and CASS DOOR SPRING (B) (SPM-06062)

SS-RG440

SERVICE MANUAL

Ver 1.2 2004. 09

US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model

- SS-RG440 are speaker systems in MHC-GX25/GX45/RG220/ RG310/RG440S.

SPECIFICATIONS

Speaker system	3-way, 3-unit, bass-reflex type
Speaker units	
Woofer:	13 cm, cone type
Sub woofer:	13 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 240 × 325 × 243 mm
Mass	Approx. 4.3 kg net per speaker

Design and specifications are subject to change without notice.

PARTS LIST

Part No.	Description	Remark
A-4738-565-A	FRONT SPEAKER ASSY (L) (MHC-RG220: AR,MX,E51)	
A-4738-566-A	FRONT SPEAKER ASSY (R) (MHC-RG220: AR,MX,E51)	
A-4741-784-A	SYSTEM (L) ASSY, SPEAKER	(EXCEPT MHC-RG220: AR,MX,E51)
A-4741-785-A	SYSTEM (R) ASSY, SPEAKER	(EXCEPT MHC-RG220: AR,MX,E51)

- Abbreviation
  AR : Argentine model
  E51 : 220 V AC area in E model
  MX : Mexican model

SPEAKER SYSTEM

9-877-126-03
2004I04-1
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REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2003. 03	New
1.1	2003. 07	Addition of Destination (Canadian, AEP, UK, E, Australian model)
1.2	2004. 09	Part Number Correction of SYSTEM (L)/(R) ASSY, SPEAKER (SPM-04116)

SS-WG990

SERVICE MANUAL

Ver 1.0 2003. 07

US Model
Canadian Model
AEP Model
UK Model
Australian Model

- SS-WG990 are speaker systems in MHC-GX45/RG440S.

SPECIFICATIONS

Speaker system	Bass-reflex type
Speaker units	
Woofer:	20 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 265 × 325 × 350 mm
Mass	Approx. 6.4 kg

Design and specifications are subject to change without notice.

PARTS LIST

Part No.	Description	Remark
A-4740-996-A	OVERALL ASSY (SS-WG990)	

SUB WOOFER SYSTEM

9-961-066-01
2003G04-1
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REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2003. 07	New